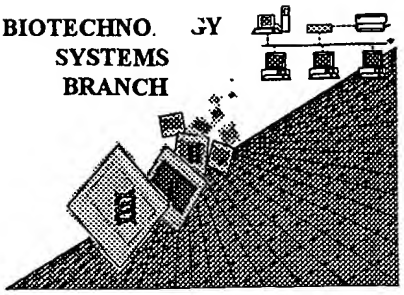
0500

BIOTECHNO. GY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/593,793

Source: OIPE

Date Processed by STIC: 6/20/2000

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**

2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

FOR FURTHER INFORMATION, PLEASE TELEPHONE MARK SPENCER, 703-308-4212.

TO **REDUCE** ERRORED SEQUENCE LISTINGS, **PLEASE** USE THE **CHECKER VERSION 3.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.
Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

http://www.uspto.gov/web/offices/pac/checker

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 09/593,793

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1 ____ Wrapped Nucleics
The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

2 ____ Wrapped Aminos
The amino acid number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

3 ___J___ Incorrect Line Length
The rules require that a line not exceed 72 characters in length. This includes spaces.

4 ___J___ Misaligned Amino Acid Numbering
The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.

5 ____ Non-ASCII
This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.

6 ____ Variable Length
Sequence(s) ____ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.

7 ____ PatentIn ver. 2.0 "bug"
A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence.

8 ____ Skipped Sequences (OLD RULES)
Sequence(s) ____ missing. If intentional, please use the following format for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).

9 ____ Skipped Sequences (NEW RULES)
Sequence(s) ____ missing. If intentional, please use the following format for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

10 ___J___ Use of n's or Xaa's (NEW RULES)
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of **n** or **Xaa**, and which residue **n** or **Xaa** represents.

11 ____ Use of <213>Organism (NEW RULES)
Sequence(s) _____ are missing this mandatory field or its response.

12 ____ Use of <220>Feature (NEW RULES)
Sequence(s) ____ are missing the <220>Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)

13 ____ PatentIn ver. 2.0 "bug"
Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).
Instead, please use "File Manager" or any other means to copy file to floppy disk.

OIPE

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:31

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

Does Not Comply
Corrected Diskette Needed

3 <110> APPLICANT: Xu, Jiangchun
4 Dillon, Davin C.
5 Mitcham, Jennifer L.
6 Harlocker, Susan L.
7 Jiang, Yuqui
8 Reed, Steven G.
9 Kalos, Michael D.
10 Fanger, Gary R.
11 Retter, Marc W.
12 Stolk, John A.
13 Day, Craig H.
14 Vedvick, Thomas S.
15 Carter, Darrick
16 Li, Samuel
17 Wang, Aijun
18 Skeiky, Yasir A.W.
19 Helper, William
21 <120> TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY AND
22 DIAGNOSIS OF PROSTATE CANCER
24 <130> FILE REFERENCE: 210121.42715C15
26 <140> CURRENT APPLICATION NUMBER: US/09/593,793
27 <141> CURRENT FILING DATE: 2000-06-13
29 <160> NUMBER OF SEQ ID NOS: 814
31 <170> SOFTWARE: FastSEQ for Windows Version 3.0

ERRORED SEQUENCES

676 <210> SEQ ID NO: 26
677 <211> LENGTH: 820
678 <212> TYPE: DNA
679 <213> ORGANISM: Homo sapien
681 <220> FEATURE:
682 <221> NAME/KEY: misc_feature
683 <222> LOCATION: (1)...(820)
684 <223> OTHER INFORMATION: n = A,T,C or G
686 <400> SEQUENCE: 26

P.2

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W--> 688 cccanagata ncttatanca acagtgcttt gaccaagagc tgctgggcac atttcctgca 120
689 gaaaaggtgg cggtccccat cactcctcct ctcccatagc catcccagag gggtgagtag 180
W--> 690 ccatcangcc ttcggtggga gggagtcang gaaacaacan accacagagc anacagacca 240
W--> 691 ntgatgacca tgggcgggag cgagcctctt ccctgnaccg gggtggcana nganagccta 300
W--> 692 nctgaggggt cacactataa acgttaacga ccnagatnan cacctgcttc aagtgcaccc 360
W--> 693 ttcctacctg acnaccagng accnnnaact gcngcctggg gacagcnctg ggancagcta 420
W--> 694 acnnagcact cacctgcccc cccatggccg tncgcntccc tggtcctgnc aagggaagct 480
W--> 695 ccctgttgga attncgggga naccaaggga ncccctcct ccanctgtga aggaaaaann 540
W--> 696 gatggaattt tnccttccg gccnntcccc tcttccttta cacgcccct nntactcntc 600

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:31

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

W--> 697 tccctctntt ntcctgncnc acttttnacc ccnnnatttc ccttnattga tcggannctn 660
W--> 698 ganattccac tnncgcctnc cntcnatcng naanacnaaa nactntctna cccnggggat 720
E--> 699
gggnncctcg ntcatcctct ctttttcnct accnccnntt ctttgcctct ccttngatca 780tccaaccntc gntggccntn ccccccnnn tc

Insert a hard return

7203 <210> SEQ ID NO: 378
7204 <211> LENGTH: 1719
7205 <212> TYPE: PRT
7206 <213> ORGANISM: Homo sapien
7208 <400> SEQUENCE: 378

pg 4-6

7209	Met	Val	Val	Glu	Val	Asp	Ser	Met	Pro	Ala	Ala	Ser	Ser	Val	Lys	Lys
7210	1			5					10					15		
7211	Pro	Phe	Gly	Leu	Arg	Ser	Lys	Met	Gly	Lys	Trp	Cys	Cys	Arg	Cys	Phe
7212			20					25					30			
7213	Pro	Cys	Cys	Arg	Glu	Ser	Gly	Lys	Ser	Asn	Val	Gly	Thr	Ser	Gly	Asp
7214		35					40					45				
7215	His	Asp	Asp	Ser	Ala	Met	Lys	Thr	Leu	Arg	Ser	Lys	Met	Gly	Lys	Trp
7216	50					55					60					
7217	Cys	Arg	His	Cys	Phe	Pro	Cys	Cys	Arg	Gly	Ser	Gly	Lys	Ser	Asn	Val
7218	65				70					75						80
7219	Gly	Ala	Ser	Gly	Asp	His	Asp	Asp	Ser	Ala	Met	Lys	Thr	Leu	Arg	Asn
7220				85					90					95		
7221	Lys	Met	Gly	Lys	Trp	Cys	Cys	His	Cys	Phe	Pro	Cys	Cys	Arg	Gly	Ser
7222			100					105					110			
7223	Gly	Lys	Ser	Lys	Val	Gly	Ala	Trp	Gly	Asp	Tyr	Asp	Asp	Ser	Ala	Phe
7224		115					120					125				
7225	Met	Glu	Pro	Arg	Tyr	His	Val	Arg	Gly	Glu	Asp	Leu	Asp	Lys	Leu	His
7226	130					135					140					
7227	Arg	Ala	Ala	Trp	Trp	Gly	Lys	Val	Pro	Arg	Lys	Asp	Leu	Ile	Val	Met
7228	145				150					155						160
7229	Leu	Arg	Asp	Thr	Asp	Val	Asn	Lys	Lys	Asp	Lys	Gln	Lys	Arg	Thr	Ala
7230				165					170					175		
7231	Leu	His	Leu	Ala	Ser	Ala	Asn	Gly	Asn	Ser	Glu	Val	Val	Lys	Leu	Leu
7232			180					185					190			
7233	Leu	Asp	Arg	Arg	Cys	Gln	Leu	Asn	Val	Leu	Asp	Asn	Lys	Lys	Arg	Thr
7234		195					200					205				
7235	Ala	Leu	Ile	Lys	Ala	Val	Gln	Cys	Gln	Glu	Asp	Glu	Cys	Ala	Leu	Met
7236	210					215					220					
7237	Leu	Leu	Glu	His	Gly	Thr	Asp	Pro	Asn	Ile	Pro	Asp	Glu	Tyr	Gly	Asn
7238	225				230					235						240
7239	Thr	Thr	Leu	His	Tyr	Ala	Ile	Tyr	Asn	Glu	Asp	Lys	Leu	Met	Ala	Lys
7240				245					250					255		
7241	Ala	Leu	Leu	Leu	Tyr	Gly	Ala	Asp	Ile	Glu	Ser	Lys	Asn	Lys	His	Gly
7242			260					265					270			
7243	Leu	Thr	Pro	Leu	Leu	Leu	Gly	Val	His	Glu	Gln	Lys	Gln	Gln	Val	Val
7244		275					280					285				
7245	Lys	Phe	Leu	Ile	Lys	Lys	Lys	Ala	Asn	Leu	Asn	Ala	Leu	Asp	Arg	Tyr
7246	290					295					300					
7247	Gly	Arg	Thr	Ala	Leu	Ile	Leu	Ala	Val	Cys	Cys	Gly	Ser	Ala	Ser	Ile
7248	305				310					315						320
7249	Val	Ser	Leu	Leu	Leu	Glu	Gln	Asn	Ile	Asp	Val	Ser	Ser	Gln	Asp	Leu

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

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7251  Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser His His His Val
7252      340                 345                 350
7253  Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln Met Leu Lys Ile
7254          355                 360                 365
7255  Ser Ser Glu Asn Ser Asn Pro Glu Asn Val Ser Arg Thr Arg Asn Lys
7256      370                 375                 380
7257  Pro Arg Thr His Met Val Val Glu Val Asp Ser Met Pro Ala Ala Ser
7258  385                 390                 395                 400
7259  Ser Val Lys Lys Pro Phe Gly Leu Arg Ser Lys Met Gly Lys Trp Cys
7260                 405                 410                 415
7261  Cys Arg Cys Phe Pro Cys Cys Arg Glu Ser Gly Lys Ser Asn Val Gly
7262              420                 425                 430
7263  Thr Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr Leu Arg Ser Lys
7264          435                 440                 445
7265  Met Gly Lys Trp Cys Arg His Cys Phe Pro Cys Cys Arg Gly Ser Gly
7266      450                 455                 460
7267  Lys Ser Asn Val Gly Ala Ser Gly Asp His Asp Asp Ser Ala Met Lys
7268  465                 470                 475                 480
7269  Thr Leu Arg Asn Lys Met Gly Lys Trp Cys Cys His Cys Phe Pro Cys
7270                 485                 490                 495
7271  Cys Arg Gly Ser Gly Lys Ser Lys Val Gly Ala Trp Gly Asp Tyr Asp
7272              500                 505                 510
7273  Asp Ser Ala Phe Met Glu Pro Arg Tyr His Val Arg Gly Glu Asp Leu
7274          515                 520                 525
7275  Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val Pro Arg Lys Asp
7276      530                 535                 540
7277  Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys Lys Asp Lys Gln
7278  545                 550                 555                 560
7279  Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser Glu Val
7280                 565                 570                 575
7281  Val Lys Leu Leu Leu Asp Arg Arg Cys Gln Leu Asn Val Leu Asp Asn
7282              580                 585                 590
7283  Lys Lys Arg Thr Ala Leu Ile Lys Ala Val Gln Cys Gln Glu Asp Glu
7284          595                 600                 605
7285  Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile Pro Asp
7286      610                 615                 620
7287  Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Ile Tyr Asn Glu Asp Lys
7288  625                 630                 635                 640
7289  Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu Ser Lys
7290                 645                 650                 655
7291  Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Val His Glu Gln Lys
7292              660                 665                 670
7293  Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu Asn Ala
7294          675                 680                 685
7295  Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys Cys Gly
7296      690                 695                 700
7297  Ser Ala Ser Ile Val Ser Leu Leu Leu Glu Gln Asn Ile Asp Val Ser
7298  705                 710                 715                 720
```

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
7299  Ser Gln Asp Leu Ser Gly Gln Thr Ala Arg Glu Tyr Ala Val Ser Ser
7300                  725                 730                 735
7301  His His His Val Ile Cys Gln Leu Leu Ser Asp Tyr Lys Glu Lys Gln
7302              740                 745                 750
7303  Met Leu Lys Ile Ser Ser Glu Asn Ser Asn Pro Glu Gln Asp Leu Lys
7304          755                 760                 765
7305  Leu Thr Ser Glu Glu Glu Ser Gln Arg Phe Lys Gly Ser Glu Asn Ser
7306      770                 775                 780
7307  Gln Pro Glu Lys Met Ser Gln Glu Pro Glu Ile Asn Lys Asp Gly Asp
7308  785                 790                 795                 800
7309  Arg Glu Val Glu Glu Glu Met Lys Lys His Glu Ser Asn Asn Val Gly
7310                  805                 810                 815
7311  Leu Leu Glu Asn Leu Thr Asn Gly Val Thr Ala Gly Asn Gly Asp Asn
7312              820                 825                 830
7313  Gly Leu Ile Pro Gln Arg Lys Ser Arg Thr Pro Glu Asn Gln Gln Phe
7314          835                 840                 845
7315  Pro Asp Asn Glu Ser Glu Glu Tyr His Arg Ile Cys Glu Leu Val Ser
7316      850                 855                 860
7317  Asp Tyr Lys Glu Lys Gln Met Pro Lys Tyr Ser Ser Glu Asn Ser Asn
7318  865                 870                 875                 880
7319  Pro Glu Gln Asp Leu Lys Leu Thr Ser Glu Glu Glu Ser Gln Arg Leu
7320                  885                 890                 895
7321  Glu Gly Ser Glu Asn Gly Gln Pro Glu Leu Glu Asn Phe Met Ala Ile
7322              900                 905                 910
7323  Glu Glu Met Lys Lys His Gly Ser Thr His Val Gly Phe Pro Glu Asn
7324          915                 920                 925
7325  Leu Thr Asn Gly Ala Thr Ala Gly Asn Gly Asp Asp Gly Leu Ile Pro
7326      930                 935                 940
7327  Pro Arg Lys Ser Arg Thr Pro Glu Ser Gln Gln Phe Pro Asp Thr Glu
7328  945                 950                 955                 960
7329  Asn Glu Glu Tyr His Ser Asp Glu Gln Asn Asp Thr Gln Lys Gln Phe
7330                  965                 970                 975
7331  Cys Glu Glu Gln Asn Thr Gly Ile Leu His Asp Glu Ile Leu Ile His
7332              980                 985                 990
7333  Glu Glu Lys Gln Ile Glu Val Val Glu Lys Met Asn Ser Glu Leu Ser
7334          995                 1000                1005
7335  Leu Ser Cys Lys Lys Glu Lys Asp Ile Leu His Glu Asn Ser Thr Leu
7336      1010                1015                1020
7337  Arg Glu Glu Ile Ala Met Leu Arg Leu Glu Leu Asp Thr Met Lys His
E--> 7338  1025                1030                1035                1040 104
7339  Gln Ser Gln Leu Pro Arg Thr His Met Val Val Glu Val Asp Ser Met
7340                  1045                1050                1055
7341  Pro Ala Ala Ser Ser Val Lys Lys Pro Phe Gly Leu Arg Ser Lys Met
7342              1060                1065                1070
7343  Gly Lys Trp Cys Cys Arg Cys Phe Pro Cys Cys Arg Glu Ser Gly Lys
7344          1075                1080                1085
7345  Ser Asn Val Gly Thr Ser Gly Asp His Asp Asp Ser Ala Met Lys Thr
7346      1090                1095                1100
7347  Leu Arg Ser Lys Met Gly Lys Trp Cys Arg His Cys Phe Pro Cys Cys
```

when amino acid number is under the last amino acid, and number under the last letter of the amino acid (e.g. His 1040)

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

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     7349  Arg Gly Ser Gly Lys Ser Asn Val Gly Ala Ser Gly Asp His Asp Asp
     7350                  1125                1130                1135
     7351  Ser Ala Met Lys Thr Leu Arg Asn Lys Met Gly Lys Trp Cys Cys His
     7352              1140                1145                1150
     7353  Cys Phe Pro Cys Cys Arg Gly Ser Gly Lys Ser Lys Val Gly Ala Trp
     7354          1155                1160                1165
     7355  Gly Asp Tyr Asp Asp Ser Ala Phe Met Glu Pro Arg Tyr His Val Arg
     7356      1170                1175                1180
     7357  Gly Glu Asp Leu Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val
E--> 7358  1185                1190                1195                120
     7359  Pro Arg Lys Asp Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys
     7360                  1205                1210                1215
     7361  Lys Asp Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly
     7362              1220                1225                1230
     7363  Asn Ser Glu Val Val Lys Leu Leu Leu Asp Arg Arg Cys Gln Leu Asn
     7364          1235                1240                1245
     7365  Val Leu Asp Asn Lys Lys Arg Thr Ala Leu Ile Lys Ala Val Gln Cys
     7366      1250                1255                1260
     7367  Gln Glu Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro
E--> 7368  1265                1270                1275                128
     7369  Asn Ile Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Ile Tyr
     7370                  1285                1290                1295
     7371  Asn Glu Asp Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp
     7372              1300                1305                1310
     7373  Ile Glu Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Val
     7374          1315                1320                1325
     7375  His Glu Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala
     7376      1330                1335                1340
     7377  Asn Leu Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala
E--> 7378  1345                1350                1355                136
     7379  Val Cys Cys Gly Ser Ala Ser Ile Val Ser Leu Leu Leu Glu Gln Asn
     7380                  1365                1370                1375
     7381  Ile Asp Val Ser Ser Gln Asp Leu Ser Gly Gln Thr Ala Arg Glu Tyr
     7382              1380                1385                1390
     7383  Ala Val Ser Ser His His His Val Ile Cys Gln Leu Leu Ser Asp Tyr
     7384          1395                1400                1405
     7385  Lys Glu Lys Gln Met Leu Lys Ile Ser Ser Glu Asn Ser Asn Pro Glu
     7386      1410                1415                1420
     7387  Gln Asp Leu Lys Leu Thr Ser Glu Glu Glu Ser Gln Arg Phe Lys Gly
E--> 7388  1425                1430                1435                144
     7389  Ser Glu Asn Ser Gln Pro Glu Lys Met Ser Gln Glu Pro Glu Ile Asn
     7390                  1445                1450                1455
     7391  Lys Asp Gly Asp Arg Glu Val Glu Glu Glu Met Lys Lys His Glu Ser
     7392              1460                1465                1470
     7393  Asn Asn Val Gly Leu Leu Glu Asn Leu Thr Asn Gly Val Thr Ala Gly
     7394          1475                1480                1485
     7395  Asn Gly Asp Asn Gly Leu Ile Pro Gln Arg Lys Ser Arg Thr Pro Glu
     7396      1490                1495                1500
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done
now

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

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     7397  Asn Gln Gln Phe Pro Asp Asn Glu Ser Glu Glu Tyr His Arg Ile Cys
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     7399  Glu Leu Val Ser Asp Tyr Lys Glu Lys Gln Met Pro Lys Tyr Ser Ser
     7400                  1525                1530                1535
     7401  Glu Asn Ser Asn Pro Glu Gln Asp Leu Lys Leu Thr Ser Glu Glu Glu
     7402              1540                1545                1550
     7403  Ser Gln Arg Leu Glu Gly Ser Glu Asn Gly Gln Pro Glu Lys Arg Ser
     7404          1555                1560                1565
     7405  Gln Glu Pro Glu Ile Asn Lys Asp Gly Asp Arg Glu Leu Glu Asn Phe
     7406      1570                1575                1580
     7407  Met Ala Ile Glu Glu Met Lys Lys His Gly Ser Thr His Val Gly Phe
E--> 7408  1585                1590                1595                160
     7409  Pro Glu Asn Leu Thr Asn Gly Ala Thr Ala Gly Asn Gly Asp Asp Gly
     7410                  1605                1610                1615
     7411  Leu Ile Pro Pro Arg Lys Ser Arg Thr Pro Glu Ser Gln Gln Phe Pro
     7412              1620                1625                1630
     7413  Asp Thr Glu Asn Glu Glu Tyr His Ser Asp Glu Gln Asn Asp Thr Gln
     7414          1635                1640                1645
     7415  Lys Gln Phe Cys Glu Glu Gln Asn Thr Gly Ile Leu His Asp Glu Ile
     7416      1650                1655                1660
     7417  Leu Ile His Glu Glu Lys Gln Ile Glu Val Val Glu Lys Met Asn Ser
E--> 7418  1665                1670                1675                168
     7419  Glu Leu Ser Leu Ser Cys Lys Lys Glu Lys Asp Ile Leu His Glu Asn
     7420                  1685                1690                1695
     7421  Ser Thr Leu Arg Glu Glu Ile Ala Met Leu Arg Leu Glu Leu Asp Thr
     7422              1700                1705                1710
     7423  Met Lys His Gln Ser Gln Leu
     7424          1715
     7680 <210> SEQ ID NO: 383
     7681 <211> LENGTH: 155
     7682 <212> TYPE: PRT
     7683 <213> ORGANISM: Homo sapiens
     7685 <400> SEQUENCE: 383
     7686 Met Ala Gly Val Arg Asp Gln Gly Gln Gly Ala Arg Trp Pro His Thr
     7687                   5                  10                  15
     7689 Gly Lys Arg Gly Pro Leu Leu Gln Gly Leu Thr Trp Ala Thr Gly Gly
     7690               20                  25                  30
     7692 His Cys Phe Ser Ser Glu Glu Ser Gly Ala Val Asp Gly Ala Gly Gln
     7693           35                  40                  45
     7695 Lys Lys Asp Arg Ala Trp Leu Arg Cys Pro Glu Ala Val Ala Gly Phe
     7696       50                  55                  60
     7698 Pro Leu Gly Ser Asp Cys Arg Glu Gly Gly Arg Gln Gly Cys Gly Gly
     7699  65                  70                  75                  80
     7701 Ser Asp Asp Glu Asp Asp Leu Gly Val Ala Pro Gly Leu Ala Pro Ala
     7702                   85                  90                  95
     7704 Trp Ala Leu Thr Gln Pro Pro Ser Gln Ser Pro Gly Pro Gln Ser Leu
     7705               100                 105                 110
     7707 Pro Ser Thr Pro Ser Ser Ile Trp Pro Gln Trp Val Ile Leu Ile Thr
     7708           115                 120                 125
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same

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RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
     7710 Glu Leu Thr Ile Pro Ser Pro Ala His Gly Pro Pro Trp Leu Pro Asn
     7711     130                 135                 140
     7713 Ala Leu Glu Arg Gly His Leu-Val Arg-Glu
E--> 7714 145                 150
     9515 <210> SEQ ID NO: 477
     9516 <211> LENGTH: 141 (C) 140
     9517 <212> TYPE: PRT
     9518 <213> ORGANISM: Homo sapiens
     9520 <400> SEQUENCE: 477
     9521 Met Asp Gly His Thr Asp Ile Trp Arg Asn His Met Asp Thr Pro Pro
     9522                  5                  10                  15
     9524 His Tyr His Arg Asp Thr Asp Thr Arg Arg His His His Met Asp Thr
     9525              20                  25                  30
     9527 Leu Ser His Tyr His Arg Asp Thr Arg His His Thr Val Thr Trp Thr
     9528          35                  40                  45
     9530 His His His Thr His Glu His Thr Asp Thr Leu Pro Tyr Gly His Trp
     9531      50                  55                  60
     9533 His Thr His Cys His Thr Val Thr Trp Thr His Leu His Thr Ile Thr
     9534  65                  70                  75                  80
     9536 Pro Pro His Thr Leu Pro Val Asp Thr Arg Thr His Arg His Cys His
     9537                  85                  90                  95
     9539 Thr Asp Thr Gln Asn Thr Val Thr Arg Arg His His His Ala Asp Thr
     9540             100                 105                 110
     9542 Pro Pro Leu Trp Cys Arg Leu Asn Tyr Pro Ala Gly Gly Thr Ala Val
     9543         115                 120                 125
     9545 Ala Tyr Ser Cys Leu Ser Asp Trp Leu Ser Pro Gln
E--> 9546     130                 135                 140
     9549 <210> SEQ ID NO: 478
     9550 <211> LENGTH: 144 (C) 143
     9551 <212> TYPE: PRT
     9552 <213> ORGANISM: Homo sapiens
     9554 <400> SEQUENCE: 478
     9555 Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln
     9556                  5                  10                  15
     9558 Ser His Gly His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr
     9559              20                  25                  30
     9561 Gly Glu Ile Thr Trp Thr His His His Thr Ile Thr Gly Thr Gln Thr
     9562          35                  40                  45
     9564 His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Thr Gly Thr
     9565      50                  55                  60
     9567 Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr
     9568  65                  70                  75                  80
     9570 Pro Thr His Cys His Met Asp Thr Gly Thr His Thr Ala Thr Leu Ser
     9571                  85                  90                  95
     9573 His Gly His Thr Ser Thr Pro Ser His His His Thr His Cys Leu Trp
     9574             100                 105                 110
     9576 Thr Gln Gly His Thr Asp Thr Val Thr Gln Ile His Lys Thr Leu Ser
     9577         115                 120                 125
     9579 His Gly Asp Ile Thr Met Gln Ile His His His Ser Gly Ala Val
```

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

E--> 9580 130 135 140
9583 <210> SEQ ID NO: 479
9584 <211> LENGTH: 223 222
9585 <212> TYPE: PRT
9586 <213> ORGANISM: Homo sapiens
9588 <400> SEQUENCE: 479
9589 Met Tyr Arg His Thr Glu Thr Leu Pro His Gly Asp Thr Val Thr Gln
9590 5 10 15
9592 Ser His Glu His Thr Gly Ile Val Thr Trp Thr Asp Thr Gln Thr Tyr
9593 20 25 30
9595 Gly Glu Ile Thr Leu Thr His His His Thr Ile Thr Gly Thr Gln Thr
9596 35 40 45
9598 His Gly Asp Ile Thr Thr Trp Thr His Cys His Thr Thr Thr Gly Thr
9599 50 55 60
9601 Arg Asp Ile Thr Leu Ser His Gly His Thr Ile Thr His Met Asn Thr
9602 65 70 75 80
9604 Pro Thr His Cys His Met Asp Thr Ala Thr His Thr Ala Thr Leu Ser
9605 85 90 95
9607 His Gly His Thr Ser Ile Pro Ser His His His Thr His Cys His Val
9608 100 105 110
9610 Asp Thr Arg Thr His Arg His Cys His Thr Asp Thr Gln Asn Thr Val
9611 115 120 125
9613 Thr Arg Arg His His His Ala Asp Thr Pro Pro His Gly His Ser Thr
9614 130 135 140
9616 Arg His Ser Ala Thr Gln Ile His His His Thr Glu Met Arg Thr His
9617 145 150 155 160
9619 Cys His Thr Asp Thr Thr Thr Ser Leu Pro His Phe His Val Ser Ala
9620 165 170 175
9622 Gly Gly Val Gly Pro Thr Thr Leu Gly Ser Asn Arg Glu Ile Thr Trp
9623 180 185 190
9625 Thr Tyr Ser Glu Gly Lys Ile Phe Phe Tyr Phe Leu Gly Asn Gln Ala
9626 195 200 205
9628 Arg Leu Cys Leu Lys Lys Arg Lys Lys Lys Gln Tyr Thr Val
E--> 9629 210 215 220
9632 <210> SEQ ID NO: 480
9633 <211> LENGTH: 145 144
9634 <212> TYPE: PRT
9635 <213> ORGANISM: Homo sapiens
9637 <400> SEQUENCE: 480
9638 Met Glu Pro Tyr Arg Gly Asn Glu Gln Pro Ser Gln Glu Gln Gly Val
9639 5 10 15
9641 Cys Cys Leu Trp Gly Leu Gln Ser Leu Pro Gln Gly Ser Tyr Val Thr
9642 20 25 30
9644 Val Gly Phe Leu Val Val Lys Arg Gln Thr Ile Gly Arg Leu Glu Arg
9645 35 40 45
9647 Asp Phe Met Phe Lys Cys Arg Lys Gln Pro Gly Leu Pro Pro Ser Gly
9648 50 55 60
9650 Leu Cys Leu Leu Trp Pro Trp Pro Asn Leu Glu Phe Gly Arg Arg Gln
9651 65 70 75 80

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PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
     9653 Asp Arg Leu Thr Trp Ser Ser Val Ser Val Ala Gly Val Cys Ala Cys
     9654                 85                  90                  95
     9656 Arg Ala Arg Pro Gly Trp Leu Gly Glu Gln Pro Ala Thr Ser Ala Gly
     9657             100                 105                 110
     9659 Val Arg Leu Glu Gln Val Glu Gln Pro Pro Ala His Pro Leu Gln Glu
     9660         115                 120                 125
     9662 Ala Gly Val Ala Arg Phe Pro Arg Pro Glu Trp Val Pro Pro Asn Gly
E--> 9663     130                 135                 140
     9669 <210> SEQ ID NO: 481
     9670 <211> LENGTH: 168                                   167
     9671 <212> TYPE: PRT
     9672 <213> ORGANISM: Homo sapiens
     9674 <400> SEQUENCE: 481
     9675 Met His Gly Pro Gln Val Leu Ala Arg Cys Ser Glu Cys Ala Cys Pro
     9676                 5                  10                  15
     9678 Ala Leu Ala Ala Thr Ser Ala Gly Val Arg Leu Glu Gly Val Asp Arg
     9679             20                  25                  30
     9681 Pro Pro Thr Leu Pro Ser Gln Gly Ser Gly Trp Pro Cys Ser His Ser
     9682         35                  40                  45
     9684 Leu Ser Gly Cys His Leu Met Ala Asp Gly Ala Lys Ala Leu Gly Lys
     9685     50                  55                  60
     9687 Ala Asp Gly Pro Trp Pro Tyr Leu Phe Val Arg Arg Thr Asp Val Pro
     9688 65                  70                  75                  80
     9690 Cys Pro Ala Ala Ser Glu Val Gly Gly Cys Ala Pro Ser Ser Trp Arg
     9691                 85                  90                  95
     9693 Ala Leu Ala Glu Val Thr Gly Cys Ser Leu Gly Pro Leu Gly Leu Ala
     9694             100                 105                 110
     9696 Gln His Ala Gln Ala Ser Val Leu Leu Leu Cys Tyr Lys Trp Ser His
     9697         115                 120                 125
     9699 Ile Gly Glu Thr Ser Ser His Leu Arg Ser Lys Val Tyr Ala Ala Phe
     9700     130                 135                 140
     9702 Gly Gly Ser Ser Pro Cys Leu Lys Gly Leu Met Ser Leu Trp Ala Ser
     9703 145                 150                 155                 160
     9705 Trp Leu Ser Arg Gly Arg Pro
E--> 9706                 165
     9709 <210> SEQ ID NO: 482
     9710 <211> LENGTH: 144                                   143
     9711 <212> TYPE: PRT
     9712 <213> ORGANISM: Homo sapiens
     9714 <400> SEQUENCE: 482
     9715 Met Glu Pro Tyr Arg Gly Asn Lys Lys Gln Val Gln Glu Lys Gly Val
     9716                 5                  10                  15
     9718 Pro Cys Leu Trp Gly Ser Ser Pro Cys Leu Arg Cys His Met Ala Leu
     9719             20                  25                  30
     9721 Arg Ala Ser Trp Leu Pro Gly Gly Gly Pro Gln Ala Ile Leu Gly Arg
     9722         35                  40                  45
     9724 Thr Leu Cys Ser Ser Ala Glu Ser Ser Gln Asp Cys His Pro Gly Gly
     9725     50                  55                  60
     9727 Pro Ser Ile Ala Leu Ala Lys Pro Cys Arg Gly Val Trp Leu Leu Phe
```

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PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
     9728  65                  70                  75                  80
     9730 Glu Pro Ala Trp Pro Pro Trp His Ala Arg Ala Pro Gly Ala Gly Thr
     9731          -       - 85  -             .  90                95
     9733 Leu Leu Arg Val Cys Leu Ser Cys Leu Gly Cys His Leu Cys Gly Gly
     9734             100                 105                 110
     9736 Ala Ser Gly Gly Gly Gly Pro Ala Thr Asn Leu Thr Gln Ser Arg Lys
     9737         115                 120                 125
     9739 Trp Met Ala Met Phe Pro Gln Pro Glu Trp Leu Pro Pro Asp Gly
E--> 9740     130                 135                 140
     9743 <210> SEQ ID NO: 483
     9744 <211> LENGTH: 144
     9745 <212> TYPE: PRT
     9746 <213> ORGANISM: Homo sapiens
     9748 <400> SEQUENCE: 483
     9749 Met Glu Thr Gln Arg Gly Asn Lys Gln Arg Ala Gln Glu Gln Gly Val
     9750                 5                  10                  15
     9752 Cys Cys Leu Trp Gly Ser Ser Pro Cys Leu Gly Ser Tyr Gly Thr Ala
     9753             20                  25                  30
     9755 Gly Phe Leu Val Ala Lys Arg Arg Thr Thr Gly Leu Leu Glu Glu Asp
     9756         35                  40                  45
     9758 Phe Thr Phe Lys Cys Arg Lys Gln Pro Lys Leu Pro Ser Met Arg Leu
     9759      50                  55                  60
     9761 Ser Leu Leu Trp Pro Trp Arg Asp Leu Lys Phe Val Pro Arg Gln Asp
     9762  65                  70                  75                  80
     9764 Lys Leu Thr Arg Ser Ser Val Ser Val Ala Gly Ala Tyr Ala Cys Arg
     9765                 85                  90                  95
     9767 Ala Gly Pro Gly Trp Leu Lys Glu Gln Pro Ala Thr Ser Ala Arg Val
     9768             100                 105                 110
     9770 Arg Leu Val Gln Ala Glu His Pro Pro Pro His Pro Leu Glu Glu Val
     9771         115                 120                 125
     9773 Gly Met Ala Arg Phe Pro Gln Pro Glu Cys Leu Pro Pro Tyr Cys
E--> 9774     130                 135                 140
    10291 <210> SEQ ID NO: 523
    10292 <211> LENGTH: 254
    10293 <212> TYPE: PRT
    10294 <213> ORGANISM: Artificial Sequence
    10296 <220> FEATURE:
    10297 <223> OTHER INFORMATION: Made in a lab
    10299 <400> SEQUENCE: 523
    10300  Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
    10301   1               5                  10                  15
    10302  Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile
    10303              20                  25                  30
    10304  Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu
    10305          35                  40                  45
    10306  Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln
    10307      50                  55                  60
    10308  Trp Val Leu Ser Ala Thr His Cys Phe Gln Asn Ser Tyr Thr Ile Gly
    10309  65                  70                  75                  80
```

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PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
10310  Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met
10311                  85                  90                  95
10312  Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu
10313              100                 105                 110
10314  Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu
10315          115                 120                 125
10316  Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala
10317      130                 135                 140
10318  Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg
10319  145                 150                 155                 160
10320  Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu
10321                  165                 170                 175
10322  Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys
10323              180                 185                 190
W--> 10324  Ala Gly Gly Gly Gln Xaa Gln Xaa Asp Ser Cys Asn Gly Asp Ser Gly
10325          195                 200                 205
10326  Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly
10327      210                 215                 220
10328  Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu
10329  225                 230                 235                 240
10330  Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
E--> 10331  245 250
10353 <210> SEQ ID NO: 525
10354 <211> LENGTH: 254
10355 <212> TYPE: PRT
10356 <213> ORGANISM: Homo sapien
10358 <400> SEQUENCE: 525
10359 Met Ala Thr Ala Gly Asn Pro Trp Gly Trp Phe Leu Gly Tyr Leu Ile
10360  1               5                  10                  15
10361 Leu Gly Val Ala Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile
10362             20                  25                  30
10363 Asn Gly Glu Asp Cys Ser Pro His Ser Gln Pro Trp Gln Ala Ala Leu
10364         35                  40                  45
10365 Val Met Glu Asn Glu Leu Phe Cys Ser Gly Val Leu Val His Pro Gln
10366     50                  55                  60
10367 Trp Val Leu Ser Ala Ala His Cys Phe Gln Asn Ser Tyr Thr Ile Gly
10368 65                  70                  75                  80
10369 Leu Gly Leu His Ser Leu Glu Ala Asp Gln Glu Pro Gly Ser Gln Met
10370                  85                  90                  95
10371 Val Glu Ala Ser Leu Ser Val Arg His Pro Glu Tyr Asn Arg Pro Leu
10372              100                 105                 110
10373 Leu Ala Asn Asp Leu Met Leu Ile Lys Leu Asp Glu Ser Val Ser Glu
10374          115                 120                 125
10375 Ser Asp Thr Ile Arg Ser Ile Ser Ile Ala Ser Gln Cys Pro Thr Ala
10376      130                 135                 140
10377 Gly Asn Ser Cys Leu Val Ser Gly Trp Gly Leu Leu Ala Asn Gly Arg
10378 145                 150                 155                 160
10379 Met Pro Thr Val Leu Gln Cys Val Asn Val Ser Val Val Ser Glu Glu
10380                  165                 170                 175
```

see item 10 on Error Summary Sheet

245 250 mandatory nos. - see item 4 on Error Summary Sheet

P.12

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:32

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
10381 Val Cys Ser Lys Leu Tyr Asp Pro Leu Tyr His Pro Ser Met Phe Cys
10382             180                 185                 190
10383 Ala Gly Gly Gly Gln Asp Gln Lys Asp Ser Cys Asn Gly Asp Ser Gly
10384         195                 200                 205
10385 Gly Pro Leu Ile Cys Asn Gly Tyr Leu Gln Gly Leu Val Ser Phe Gly
10386     210                 215                 220
10387 Lys Ala Pro Cys Gly Gln Val Gly Val Pro Gly Val Tyr Thr Asn Leu
10388 225                 230                 235                 240
10389 Cys Lys Phe Thr Glu Trp Ile Glu Lys Thr Val Gln Ala Ser
E--> 10390 245 250
10416 <210> SEQ ID NO: 527
10417 <211> LENGTH: 321
10418 <212> TYPE: PRT
10419 <213> ORGANISM: Homo sapiens
10421 <400> SEQUENCE: 527
10422 Met Ser Ser Cys Asn Phe Thr His Ala Thr Phe Val Leu Ile Gly Ile
10423                   5                  10                  15
10425 Pro Gly Leu Glu Lys Ala His Phe Trp Val Gly Phe Pro Leu Leu Ser
10426              20                  25                  30
10428 Met Tyr Val Val Ala Met Phe Gly Asn Cys Ile Val Val Phe Ile Val
10429          35                  40                  45
10431 Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met
10432      50                  55                  60
10434 Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile
10435  65                  70                  75                  80
10437 Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Ser Phe Glu Ala Cys
10438                85                  90                  95
10440 Leu Thr Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr
10441             100                 105                 110
10443 Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro
10444         115                 120                 125
10446 Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Ala Gln Ile Gly
10447     130                 135                 140
10449 Ile Val Ala Val Val Arg Gly Ser Leu Phe Phe Phe Pro Leu Pro Leu
10450 145                 150                 155                 160
10452 Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser
10453                165                 170                 175
10455 Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Ala Asp Thr Leu
10456             180                 185                 190
10458 Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val
10459         195                 200                 205
10461 Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Thr Val
10462     210                 215                 220
10464 Leu Gln Leu Pro Ser Lys Ser Glu Arg Ala Lys Ala Phe Gly Thr Cys
10465 225                 230                 235                 240
10467 Val Ser His Ile Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly
10468                245                 250                 255
10470 Leu Ser Val Val His Arg Phe Gly Asn Ser Leu His Pro Ile Val Arg
10471             260                 265                 270
```

RAW SEQUENCE LISTING DATE: 06/20/2000
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Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
     10473 Val Val Met Gly Asp Ile Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro
     10474         275                 280                 285
     10476 Ile Ile Tyr Gly Ala Lys Thr Lys Gln Ile Arg Thr Arg Val Leu Ala
     10477     290                 295                 300
     10479 Met Phe Lys Ile Ser Cys Asp Lys Asp Leu Gln Ala Val Gly Gly Lys
E--> 10480 305                 310                 315                 320
     10558 <210> SEQ ID NO: 532
     10559 <211> LENGTH: 293 292
     10560 <212> TYPE: PRT
     10561 <213> ORGANISM: Homo sapiens
     10563 <400> SEQUENCE: 532
     10564 Met His Leu Ser Phe Pro Ala Phe Leu Pro Pro Trp Met Asp Arg Gly
     10565                   5                  10                  15
     10567 Ser Gly Lys Ser Asn Val Gly Thr Ser Gly Asp His Asn Asp Ser Ser
     10568               20                  25                  30
     10570 Val Lys Thr Leu Gly Ser Lys Arg Cys Lys Trp Cys Cys His Cys Phe
     10571          35                  40                  45
     10573 Pro Cys Cys Arg Gly Ser Gly Lys Ser Asn Val Val Ala Trp Gly Asp
     10574      50                  55                  60
     10576 Tyr Asp Asp Ser Ala Phe Met Asp Pro Arg Tyr His Val His Gly Glu
     10577  65                  70                  75                  80
     10579 Asp Leu Asp Lys Leu His Arg Ala Ala Trp Trp Gly Lys Val Pro Arg
     10580                   85                  90                  95
     10582 Lys Asp Leu Ile Val Met Leu Arg Asp Thr Asp Val Asn Lys Arg Asp
     10583               100                 105                 110
     10585 Lys Gln Lys Arg Thr Ala Leu His Leu Ala Ser Ala Asn Gly Asn Ser
     10586          115                 120                 125
     10588 Glu Val Val Lys Leu Val Leu Asp Arg Arg Cys Gln Leu Asn Val Leu
     10589      130                 135                 140
     10591 Asp Asn Lys Lys Arg Thr Ala Leu Thr Lys Ala Val Gln Cys Gln Glu
     10592 145                 150                 155                 160
     10594 Asp Glu Cys Ala Leu Met Leu Leu Glu His Gly Thr Asp Pro Asn Ile
     10595                 165                 170                 175
     10597 Pro Asp Glu Tyr Gly Asn Thr Thr Leu His Tyr Ala Val Tyr Asn Glu
     10598             180                 185                 190
     10600 Asp Lys Leu Met Ala Lys Ala Leu Leu Leu Tyr Gly Ala Asp Ile Glu
     10601         195                 200                 205
     10603 Ser Lys Asn Lys His Gly Leu Thr Pro Leu Leu Leu Gly Ile His Glu
     10604     210                 215                 220
     10606 Gln Lys Gln Gln Val Val Lys Phe Leu Ile Lys Lys Lys Ala Asn Leu
     10607 225                 230                 235                 240
     10609 Asn Ala Leu Asp Arg Tyr Gly Arg Thr Ala Leu Ile Leu Ala Val Cys
     10610                 245                 250                 255
     10612 Cys Gly Ser Ala Ser Ile Val Ser Pro Leu Leu Glu Gln Asn Val Asp
     10613             260                 265                 270
     10615 Val Ser Ser Gln Asp Leu Glu Arg Arg Pro Glu Ser Met Leu Phe Leu
     10616         275                 280                 285
     10618 Val Ile Ile Met
E--> 10619     290
```

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PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
10643 <210> SEQ ID NO: 534
10644 <211> LENGTH: 267 266
10645 <212> TYPE: PRT
10646 <213> ORGANISM: Homo sapiens
10648 <400> SEQUENCE: 534
10649 Met Tyr Lys Leu Gln Cys Asn Asn Cys Ala Thr Asn Gly Ala Thr Glu
10650                 5                  10                  15
10652 Arg Lys Gln Ala Ala Gly Ser Gly Ala Gly Tyr Ala Leu Pro Ser Ala
10653             20                  25                  30
10655 Leu Gln Ser Met Pro Gln Gly Ser Tyr Ala Thr Ala Arg Phe Leu Val
10656         35                  40                  45
10658 Ala Lys Arg Pro Thr Thr Gly His Leu Glu Lys Glu Phe Met Phe His
10659     50                  55                  60
10661 Cys Arg Lys Gln Pro Gly Ser Pro Ser Arg Gly Leu Gly Leu Leu Trp
10662 65                  70                  75                  80
10664 Pro Trp Pro Asp Ile Glu Phe Val Pro Arg Gln Asp Lys Leu Thr Gln
10665                 85                  90                  95
10667 Ser Ser Val Leu Val Pro Gln Ile Cys Ala Cys Gln Thr Arg Pro Asn
10668             100                 105                 110
10670 Trp Leu Asn Glu Gln Pro Ala Thr Ser Ala Gly Val Arg Leu Glu Glu
10671         115                 120                 125
10673 Val Asp Gln Pro Pro Thr Leu Pro Ser Gln Gly Ser Gly Trp Pro Cys
10674     130                 135                 140
10676 Ser His Ser Leu Ser Gly Cys His Leu Met Ala Asp Ile Ala Lys Ala
10677 145                 150                 155                 160
10679 Leu Gly Lys Ala Asp Gly Pro Trp Pro Tyr Leu Phe Val Arg Arg Thr
10680                 165                 170                 175
10682 Asp Val Pro Cys Pro Ala Ala Ser Glu Val Gly Gly Cys Ala Pro Ser
10683             180                 185                 190
10685 Ser Trp His Thr Leu Ala Glu Val Thr Gly Cys Ser Leu Ser Pro Leu
10686         195                 200                 205
10688 Ser Leu Ala Gln His Ala Gln Ala Ser Val Leu Leu Cys Tyr Lys
10689     210                 215                 220
10691 Trp Ser His Ile Gly Glu Thr Ser Ser His Leu Arg Ser Lys Val Tyr
10692 225                 230                 235                 240
10694 Ala Ala Phe Gly Gly Ser Ser Pro Cys Leu Lys Gly Leu Met Ser Leu
10695                 245                 250                 255
10697 Trp Ala Ser Trp Leu Pro Arg Gly Arg Pro
E--> 10698             260                 265
10925 <210> SEQ ID NO: 537
10926 <211> LENGTH: 1229 1228 pp. 17-18
10927 <212> TYPE: PRT
10928 <213> ORGANISM: Homo sapiens
10930 <400> SEQUENCE: 537
10931 Met Leu Pro Val Tyr Gln Glu Val Lys Pro Asn Pro Leu Gln Asp Ala
10932                 5                  10                  15
10934 Asn Leu Cys Ser Arg Val Phe Phe Trp Trp Leu Asn Pro Leu Phe Lys
10935             20                  25                  30
10937 Ile Gly His Lys Arg Arg Leu Glu Glu Asp Asp Met Tyr Ser Val Leu
```

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PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
10938          35                  40                  45
10940 Pro Glu Asp Arg Ser Gln His Leu Gly Glu Glu Leu Gln Gly Phe Trp
10941      50                  55                  60
10943 Asp Lys Glu Val Leu Arg Ala Glu Asn Asp Ala Gln Lys Pro Ser Leu
10944  65                  70                  75                  80
10946 Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser Tyr Leu Val Leu Gly
10947                  85                  90                  95
10949 Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val Ile Gln Pro Ile Phe
10950             100                 105                 110
10952 Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr Asp Pro Met Asp Ser
10953         115                 120                 125
10955 Val Ala Leu Asn Thr Ala Tyr Ala Tyr Ala Thr Val Leu Thr Phe Cys
10956     130                 135                 140
10958 Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr Phe Tyr His Val Gln
10959 145                 150                 155                 160
10961 Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys His Met Ile Tyr Arg
10962                 165                 170                 175
10964 Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly Lys Thr Thr Thr Gly
10965             180                 185                 190
10967 Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn Lys Phe Asp Gln Val
10968         195                 200                 205
10970 Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro Leu Gln Ala Ile Ala
10971     210                 215                 220
10973 Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile Ser Cys Leu Ala Gly
10974 225                 230                 235                 240
10976 Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln Ser Cys Phe Gly Lys
10977                 245                 250                 255
10979 Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr Phe Thr Asp Ala Arg
10980             260                 265                 270
10982 Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile Arg Ile Ile Lys Met
10983         275                 280                 285
10985 Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile Thr Asn Leu Arg Lys
10986     290                 295                 300
10988 Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys Leu Arg Gly Met Asn
10989 305                 310                 315                 320
10991 Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile Val Phe Val Thr Phe
10992                 325                 330                 335
10994 Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr Ala Ser Arg Val Phe
10995             340                 345                 350
10997 Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu Thr Val Thr Leu Phe
10998         355                 360                 365
11000 Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala Ile Val Ser Ile Arg
11001     370                 375                 380
11003 Arg Ile Gln Thr Phe Leu Leu Leu Asp Glu Ile Ser Gln Arg Asn Arg
11004 385                 390                 395                 400
11006 Gln Leu Pro Ser Asp Gly Lys Lys Met Val His Val Gln Asp Phe Thr
11007                 405                 410                 415
11009 Ala Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr Leu Gln Gly Leu Ser
11010             420                 425                 430
```

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
11012 Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val Val Gly Pro Val Gly
11013         435                 440                 445
11015 Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu Gly Glu Leu Ala Pro
11016     450                 455                 460
11018 Ser His Gly Leu Val Ser Val His Gly Arg Ile Ala Tyr Val Ser Gln
11019 465                 470                 475                 480
11021 Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser Asn Ile Leu Phe Gly
11022                 485                 490                 495
11024 Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val Ile Lys Ala Cys Ala
11025             500                 505                 510
11027 Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly Asp Leu Thr Val Ile
11028         515                 520                 525
11030 Gly Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln Lys Ala Arg Val Asn
11031     530                 535                 540
11033 Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile Tyr Leu Leu Asp Asp
11034 545                 550                 555                 560
11036 Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg His Leu Phe Glu Leu
11037                 565                 570                 575
11039 Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr Ile Leu Val Thr His
11040             580                 585                 590
11042 Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile Leu Ile Leu Lys Asp
11043         595                 600                 605
11045 Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu Phe Leu Lys Ser Gly
11046     610                 615                 620
11048 Ile Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn Glu Glu Ser Glu Gln
11049 625                 630                 635                 640
11051 Pro Pro Val Pro Gly Thr Pro Thr Leu Arg Asn Arg Thr Phe Ser Glu
11052                 645                 650                 655
11054 Ser Ser Val Trp Ser Gln Gln Ser Ser Arg Pro Ser Leu Lys Asp Gly
11055             660                 665                 670
11057 Ala Leu Glu Ser Gln Asp Thr Glu Asn Val Pro Val Thr Leu Ser Glu
11058         675                 680                 685
11060 Glu Asn Arg Ser Glu Gly Lys Val Gly Phe Gln Ala Tyr Lys Asn Tyr
11061     690                 695                 700
11063 Phe Arg Ala Gly Ala His Trp Ile Val Phe Ile Phe Leu Ile Leu Leu
11064 705                 710                 715                 720
11066 Asn Thr Ala Ala Gln Val Ala Tyr Val Leu Gln Asp Trp Trp Leu Ser
11067                 725                 730                 735
11069 Tyr Trp Ala Asn Lys Gln Ser Met Leu Asn Val Thr Val Asn Gly Gly
11070             740                 745                 750
11072 Gly Asn Val Thr Glu Lys Leu Asp Leu Asn Trp Tyr Leu Gly Ile Tyr
11073         755                 760                 765
11075 Ser Gly Leu Thr Val Ala Thr Val Leu Phe Gly Ile Ala Arg Ser Leu
11076     770                 775                 780
11078 Leu Val Phe Tyr Val Leu Val Asn Ser Ser Gln Thr Leu His Asn Lys
11079 785                 790                 795                 800
11081 Met Phe Glu Ser Ile Leu Lys Ala Pro Val Leu Phe Phe Asp Arg Asn
11082                 805                 810                 815
11084 Pro Ile Gly Arg Ile Leu Asn Arg Phe Ser Lys Asp Ile Gly His Leu
```

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
     11085              820                 825                 830
     11087 Asp Asp Leu Leu Pro Leu Thr Phe Leu Asp Phe Ile Gln Thr Leu Leu
     11088         835                 840                 845
     11090 Gln Val Val Gly Val Val Ser Val Ala Val Ala Val Ile Pro Trp Ile
     11091     850                 855                 860
     11093 Ala Ile Pro Leu Val Pro Leu Gly Ile Ile Phe Ile Phe Leu Arg Arg
     11094 865                 870                 875                 880
     11096 Tyr Phe Leu Glu Thr Ser Arg Asp Val Lys Arg Leu Glu Ser Thr Thr
     11097                 885                 890                 895
     11099 Arg Ser Pro Val Phe Ser His Leu Ser Ser Ser Leu Gln Gly Leu Trp
     11100             900                 905                 910
     11102 Thr Ile Arg Ala Tyr Lys Ala Glu Glu Arg Cys Gln Glu Leu Phe Asp
     11103         915                 920                 925
     11105 Ala His Gln Asp Leu His Ser Glu Ala Trp Phe Leu Phe Leu Thr Thr
     11106     930                 935                 940
     11108 Ser Arg Trp Phe Ala Val Arg Leu Asp Ala Ile Cys Ala Met Phe Val
     11109 945                 950                 955                 960
     11111 Ile Ile Val Ala Phe Gly Ser Leu Ile Leu Ala Lys Thr Leu Asp Ala
     11112                 965                 970                 975
     11114 Gly Gln Val Gly Leu Ala Leu Ser Tyr Ala Leu Thr Leu Met Gly Met
     11115             980                 985                 990
     11117 Phe Gln Trp Cys Val Arg Gln Ser Ala Glu Val Glu Asn Met Met Ile
E--> 11118         995                1000                1005
     11120 Ser Val Glu Arg Val Ile Glu Tyr Thr Asp Leu Glu Lys Glu Ala Pro
E--> 11121     1010                1015                1020
     11123 Trp Glu Tyr Gln Lys Arg Pro Pro Pro Ala Trp Pro His Glu Gly Val
E--> 11124 1025                1030                1035                1040
     11126 Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser Pro Gly Gly Pro Leu
E--> 11127                 1045                1050                1055
     11129 Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser Gln Glu Lys Val Gly
E--> 11130             1060                1065                1070
     11132 Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser Leu Ile Ser Ala Leu
E--> 11133         1075                1080                1085
     11135 Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp Ile Asp Lys Ile Leu
E--> 11136     1090                1095                1100
     11138 Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys Lys Met Ser Ile Ile
E--> 11139 1105                1110                1115                1120
     11141 Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met Arg Lys Asn Leu Asp
E--> 11142                 1125                1130                1135
     11144 Pro Phe Asn Glu His Thr Asp Glu Glu Leu Trp Asn Ala Leu Gln Glu
E--> 11145             1140                1145                1150
     11147 Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro Gly Lys Met Asp Thr
E--> 11148         1155                1160                1165
     11150 Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val Gly Gln Arg Gln Leu
E--> 11151     1170                1175                1180
     11153 Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn Gln Ile Leu Ile Ile
E--> 11154 1185                1190                1195                1200
     11156 Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr Asp Glu Leu Ile Gln
E--> 11157                 1205                1210                1215
```

misaligned
NOL

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

same error

```
11159 Lys Lys Ser Gly Arg Asn Leu Pro Thr Ala Pro Cys
E--> 11160              1220                1225
11162 <210> SEQ ID NO: 538
11163 <211> LENGTH: 1262 /1261
11164 <212> TYPE: PRT
11165 <213> ORGANISM: Homo sapiens
11167 <400> SEQUENCE: 538
11168 Met Tyr Ser Val Leu Pro Glu Asp Arg Ser Gln His Leu Gly Glu Glu
11169                   5                  10                  15
11171 Leu Gln Gly Phe Trp Asp Lys Glu Val Leu Arg Ala Glu Asn Asp Ala
11172               20                  25                  30
11174 Gln Lys Pro Ser Leu Thr Arg Ala Ile Ile Lys Cys Tyr Trp Lys Ser
11175           35                  40                  45
11177 Tyr Leu Val Leu Gly Ile Phe Thr Leu Ile Glu Glu Ser Ala Lys Val
11178       50                  55                  60
11180 Ile Gln Pro Ile Phe Leu Gly Lys Ile Ile Asn Tyr Phe Glu Asn Tyr
11181   65                  70                  75                  80
11183 Asp Pro Met Asp Ser Val Ala Leu Asn Thr Ala Tyr Ala Tyr Ala Thr
11184                   85                  90                  95
11186 Val Leu Thr Phe Cys Thr Leu Ile Leu Ala Ile Leu His His Leu Tyr
11187               100                 105                 110
11189 Phe Tyr His Val Gln Cys Ala Gly Met Arg Leu Arg Val Ala Met Cys
11190           115                 120                 125
11192 His Met Ile Tyr Arg Lys Ala Leu Arg Leu Ser Asn Met Ala Met Gly
11193       130                 135                 140
11195 Lys Thr Thr Thr Gly Gln Ile Val Asn Leu Leu Ser Asn Asp Val Asn
11196 145                 150                 155                 160
11198 Lys Phe Asp Gln Val Thr Val Phe Leu His Phe Leu Trp Ala Gly Pro
11199                   165                 170                 175
11201 Leu Gln Ala Ile Ala Val Thr Ala Leu Leu Trp Met Glu Ile Gly Ile
11202               180                 185                 190
11204 Ser Cys Leu Ala Gly Met Ala Val Leu Ile Ile Leu Leu Pro Leu Gln
11205           195                 200                 205
11207 Ser Cys Phe Gly Lys Leu Phe Ser Ser Leu Arg Ser Lys Thr Ala Thr
11208       210                 215                 220
11210 Phe Thr Asp Ala Arg Ile Arg Thr Met Asn Glu Val Ile Thr Gly Ile
11211 225                 230                 235                 240
11213 Arg Ile Ile Lys Met Tyr Ala Trp Glu Lys Ser Phe Ser Asn Leu Ile
11214                   245                 250                 255
11216 Thr Asn Leu Arg Lys Lys Glu Ile Ser Lys Ile Leu Arg Ser Ser Cys
11217               260                 265                 270
11219 Leu Arg Gly Met Asn Leu Ala Ser Phe Phe Ser Ala Ser Lys Ile Ile
11220           275                 280                 285
11222 Val Phe Val Thr Phe Thr Thr Tyr Val Leu Leu Gly Ser Val Ile Thr
11223       290                 295                 300
11225 Ala Ser Arg Val Phe Val Ala Val Thr Leu Tyr Gly Ala Val Arg Leu
11226 305                 310                 315                 320
11228 Thr Val Thr Leu Phe Phe Pro Ser Ala Ile Glu Arg Val Ser Glu Ala
11229                   325                 330                 335
```

pp 20-21

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
11231 Ile Val Ser Ile Arg Arg Ile Gln Thr Phe Leu Leu Leu Asp Glu Ile
11232             340                 345                 350
11234 Ser Gln Arg Asn Arg Gln Leu Pro Ser Asp Gly Lys Lys Met Val His
11235         355                 360                 365
11237 Val Gln Asp Phe Thr Ala Phe Trp Asp Lys Ala Ser Glu Thr Pro Thr
11238     370                 375                 380
11240 Leu Gln Gly Leu Ser Phe Thr Val Arg Pro Gly Glu Leu Leu Ala Val
11241 385                 390                 395                 400
11243 Val Gly Pro Val Gly Ala Gly Lys Ser Ser Leu Leu Ser Ala Val Leu
11244                 405                 410                 415
11246 Gly Glu Leu Ala Pro Ser His Gly Leu Val Ser Val His Gly Arg Ile
11247             420                 425                 430
11249 Ala Tyr Val Ser Gln Gln Pro Trp Val Phe Ser Gly Thr Leu Arg Ser
11250         435                 440                 445
11252 Asn Ile Leu Phe Gly Lys Lys Tyr Glu Lys Glu Arg Tyr Glu Lys Val
11253     450                 455                 460
11255 Ile Lys Ala Cys Ala Leu Lys Lys Asp Leu Gln Leu Leu Glu Asp Gly
11256 465                 470                 475                 480
11258 Asp Leu Thr Val Ile Gly Asp Arg Gly Thr Thr Leu Ser Gly Gly Gln
11259                 485                 490                 495
11261 Lys Ala Arg Val Asn Leu Ala Arg Ala Val Tyr Gln Asp Ala Asp Ile
11262             500                 505                 510
11264 Tyr Leu Leu Asp Asp Pro Leu Ser Ala Val Asp Ala Glu Val Ser Arg
11265         515                 520                 525
11267 His Leu Phe Glu Leu Cys Ile Cys Gln Ile Leu His Glu Lys Ile Thr
11268     530                 535                 540
11270 Ile Leu Val Thr His Gln Leu Gln Tyr Leu Lys Ala Ala Ser Gln Ile
11271 545                 550                 555                 560
11273 Leu Ile Leu Lys Asp Gly Lys Met Val Gln Lys Gly Thr Tyr Thr Glu
11274                 565                 570                 575
11276 Phe Leu Lys Ser Gly Ile Asp Phe Gly Ser Leu Leu Lys Lys Asp Asn
11277             580                 585                 590
11279 Glu Glu Ser Glu Gln Pro Pro Val Pro Gly Thr Pro Thr Leu Arg Asn
11280         595                 600                 605
11282 Arg Thr Phe Ser Glu Ser Ser Val Trp Ser Gln Gln Ser Ser Arg Pro
11283     610                 615                 620
11285 Ser Leu Lys Asp Gly Ala Leu Glu Ser Gln Asp Thr Glu Asn Val Pro
11286 625                 630                 635                 640
11288 Val Thr Leu Ser Glu Glu Asn Arg Ser Glu Gly Lys Val Gly Phe Gln
11289                 645                 650                 655
11291 Ala Tyr Lys Asn Tyr Phe Arg Ala Gly Ala His Trp Ile Val Phe Ile
11292             660                 665                 670
11294 Phe Leu Ile Leu Leu Asn Thr Ala Ala Gln Val Ala Tyr Val Leu Gln
11295         675                 680                 685
11297 Asp Trp Trp Leu Ser Tyr Trp Ala Asn Lys Gln Ser Met Leu Asn Val
11298     690                 695                 700
11300 Thr Val Asn Gly Gly Gly Asn Val Thr Glu Lys Leu Asp Leu Asn Trp
11301 705                 710                 715                 720
11303 Tyr Leu Gly Ile Tyr Ser Gly Leu Thr Val Ala Thr Val Leu Phe Gly
```

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PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
11304                  725                 730                 735
11306 Ile Ala Arg Ser Leu Leu Val Phe Tyr Val Leu Val Asn Ser Ser Gln
11307              740                 745                 750
11309 Thr Leu His Asn Lys Met Phe Glu Ser Ile Leu Lys Ala Pro Val Leu
11310         755                 760                 765
11312 Phe Phe Asp Arg Asn Pro Ile Gly Arg Ile Leu Asn Arg Phe Ser Lys
11313     770                 775                 780
11315 Asp Ile Gly His Leu Asp Asp Leu Leu Pro Leu Thr Phe Leu Asp Phe
11316 785                 790                 795                 800
11318 Ile Gln Thr Leu Leu Gln Val Val Gly Val Val Ser Val Ala Val Ala
11319                 805                 810                 815
11321 Val Ile Pro Trp Ile Ala Ile Pro Leu Val Pro Leu Gly Ile Ile Phe
11322             820                 825                 830
11324 Ile Phe Leu Arg Arg Tyr Phe Leu Glu Thr Ser Arg Asp Val Lys Arg
11325         835                 840                 845
11327 Leu Glu Ser Thr Thr Arg Ser Pro Val Phe Ser His Leu Ser Ser Ser
11328     850                 855                 860
11330 Leu Gln Gly Leu Trp Thr Ile Arg Ala Tyr Lys Ala Glu Glu Arg Cys
11331 865                 870                 875                 880
11333 Gln Glu Leu Phe Asp Ala His Gln Asp Leu His Ser Glu Ala Trp Phe
11334                 885                 890                 895
11336 Leu Phe Leu Thr Thr Ser Arg Trp Phe Ala Val Arg Leu Asp Ala Ile
11337             900                 905                 910
11339 Cys Ala Met Phe Val Ile Ile Val Ala Phe Gly Ser Leu Ile Leu Ala
11340         915                 920                 925
11342 Lys Thr Leu Asp Ala Gly Gln Val Gly Leu Ala Leu Ser Tyr Ala Leu
11343     930                 935                 940
11345 Thr Leu Met Gly Met Phe Gln Trp Cys Val Arg Gln Ser Ala Glu Val
11346 945                 950                 955                 960
11348 Glu Asn Met Met Ile Ser Val Glu Arg Val Ile Glu Tyr Thr Asp Leu
11349                 965                 970                 975
11351 Glu Lys Glu Ala Pro Trp Glu Tyr Gln Lys Arg Pro Pro Pro Ala Trp
11352             980                 985                 990
11354 Pro His Glu Gly Val Ile Ile Phe Asp Asn Val Asn Phe Met Tyr Ser
E--> 11355         995                1000                1005
11357 Pro Gly Gly Pro Leu Val Leu Lys His Leu Thr Ala Leu Ile Lys Ser
E--> 11358     1010                1015                1020
11360 Gln Glu Lys Val Gly Ile Val Gly Arg Thr Gly Ala Gly Lys Ser Ser
E--> 11361 1025                1030                1035                1040
11363 Leu Ile Ser Ala Leu Phe Arg Leu Ser Glu Pro Glu Gly Lys Ile Trp
E--> 11364                 1045                1050                1055
11366 Ile Asp Lys Ile Leu Thr Thr Glu Ile Gly Leu His Asp Leu Arg Lys
E--> 11367             1060                1065                1070
11369 Lys Met Ser Ile Ile Pro Gln Glu Pro Val Leu Phe Thr Gly Thr Met
E--> 11370         1075                1080                1085
11372 Arg Lys Asn Leu Asp Pro Phe Asn Glu His Thr Asp Glu Glu Leu Trp
E--> 11373     1090                1095                1100
11375 Asn Ala Leu Gln Glu Val Gln Leu Lys Glu Thr Ile Glu Asp Leu Pro
E--> 11376 1105                1110                1115                1120
```

misalgned for.

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PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
     11378 Gly Lys Met Asp Thr Glu Leu Ala Glu Ser Gly Ser Asn Phe Ser Val
E--> 11379                1125                1130                1135
     11381 Gly Gln Arg Gln Leu Val Cys Leu Ala Arg Ala Ile Leu Arg Lys Asn
E--> 11382           1140                1145                1150
     11384 Gln Ile Leu Ile Ile Asp Glu Ala Thr Ala Asn Val Asp Pro Arg Thr
E--> 11385      1155                1160                1165
     11387 Asp Glu Leu Ile Gln Lys Lys Ile Arg Glu Lys Phe Ala His Cys Thr
E--> 11388  1170                1175                1180
     11390 Val Leu Thr Ile Ala His Arg Leu Asn Thr Ile Ile Asp Ser Asp Lys
E--> 11391 1185                1190                1195                1200
     11393 Ile Met Val Leu Asp Ser Gly Arg Leu Lys Glu Tyr Asp Glu Pro Tyr
E--> 11394                1205                1210                1215
     11396 Val Leu Leu Gln Asn Lys Glu Ser Leu Phe Tyr Lys Met Val Gln Gln
E--> 11397           1220                1225                1230
     11399 Leu Gly Lys Ala Glu Ala Ala Ala Leu Thr Glu Thr Ala Lys Gln Arg
E--> 11400      1235                1240                1245
     11402 Trp Gly Phe Thr Met Leu Ala Arg Leu Val Ser Asn Ser
E--> 11403  1250                1255                1260
     11553 <210> SEQ ID NO: 551
     11554 <211> LENGTH: 15 11
     11555 <212> TYPE: PRT
     11556 <213> ORGANISM: Artificial Sequence
     11558 <220> FEATURE:
     11559 <223> OTHER INFORMATION: Made in a lab
     11561 <400> SEQUENCE: 551
E--> 11562 Phe Asp Lys Ser Asp Leu Ala Lys Tyr Ser Ala
     12135 <210> SEQ ID NO: 574
     12136 <211> LENGTH: 63 62
     12137 <212> TYPE: PRT
     12138 <213> ORGANISM: Homo sapiens
     12140 <400> SEQUENCE: 574
     12141 Met Thr His Ser Ser Ala Trp Leu Glu Arg Pro Gln Glu Thr Tyr Asn
     12142                5                  10                  15
     12144 His Gly Gly Arg Arg Arg Gly Ser Lys Ala Arg Leu Thr Trp Trp Gln
     12145            20                  25                  30
     12147 Glu Arg Thr Ser Glu Gly Gly Asp Cys His Lys Leu Phe Phe Phe Glu
     12148        35                  40                  45
     12150 Thr Arg Val Trp Pro Cys Cys Pro Gly Trp Ser Ala Val Ala
E--> 12151    50                  55                  60
     12154 <210> SEQ ID NO: 575
     12155 <211> LENGTH: 77 76
     12156 <212> TYPE: PRT
     12157 <213> ORGANISM: Homo sapiens
     12159 <400> SEQUENCE: 575
     12160 Met Val Lys Ser Arg Phe Thr Lys Asn Thr Lys Ile Thr Gln Ala Trp
     12161                5                  10                  15
     12163 Trp Arg Ala Pro Val Ile Pro Gly Thr Arg Glu Ala Glu Gly Gly Glu
     12164            20                  25                  30
     12166 Ser Leu Glu Pro Gly Arg Leu Arg Glu Glu Asn Arg Leu Asn Pro Gly
```

None given

number the amino acids under every 5 amino acids

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PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
     12167          35                  40                  45
     12169 Gly Arg Gly Cys Ser Glu Pro Arg Ser Cys Cys Cys Thr Pro Ala Trp
     12170      50                  55                  60
     12172 Ser Thr Glu Gln Asp Ser Ala Ser Lys Thr Asn Lys
E--> 12173  65                  70                  75
     12176 <210> SEQ ID NO: 576
     12177 <211> LENGTH: 69 (068)
     12178 <212> TYPE: PRT
     12179 <213> ORGANISM: Homo sapiens
     12181 <220> FEATURE:
     12182 <221> NAME/KEY: unsure
     12183 <222> LOCATION: (42)
     12184 <223> OTHER INFORMATION: Xaa = Any Amino Acid
     12186 <400> SEQUENCE: 576
     12187 Met Leu Gly Lys Ser Arg Ala Val Cys Leu Pro Ser Thr Thr Val Thr
     12188                  5                  10                  15
     12190 Thr Val Cys Tyr Leu Ala Ser Ser Ser Ala Ser Arg Glu Thr Ala Thr
     12191              20                  25                  30
W--> 12193 Arg Gln Ala Pro Gly Asn Trp Lys Met Xaa Ser Lys Cys His Ala Gln
     12194          35                  40                  45
     12196 Leu Leu Phe Thr Phe Tyr Leu Asn His Phe Tyr Gln Ile Arg Leu Asn
     12197      50                  55                  60
     12199 Pro Gly Tyr Ser
E--> 12200  65
     12203 <210> SEQ ID NO: 577
     12204 <211> LENGTH: 58 (057)
     12205 <212> TYPE: PRT
     12206 <213> ORGANISM: Homo sapiens
     12208 <400> SEQUENCE: 577
     12209 Met Tyr Leu Glu Asn Ser Phe Tyr Cys Gln Met Ile Leu Leu Lys Arg
     12210                  5                  10                  15
     12212 Cys Arg Leu Ser Lys Ile Ser Thr Gln Arg Val Val Pro Asp Gly Pro
     12213              20                  25                  30
     12215 Pro Ala Pro Val Pro Gly Ser Phe Pro Met Phe Pro Arg Phe Gly Phe
     12216          35                  40                  45
     12218 Arg Leu Ala Pro Pro Ala Asp Thr Pro
E--> 12219      50                  55
     12222 <210> SEQ ID NO: 578
     12223 <211> LENGTH: 52 (051)
     12224 <212> TYPE: PRT
     12225 <213> ORGANISM: Homo sapiens
     12227 <400> SEQUENCE: 578
     12228 Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu Leu Tyr Ile Arg His
     12229                  5                  10                  15
     12231 His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr Lys Lys Leu Asn Tyr
     12232              20                  25                  30
     12234 Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His Ile Ala Lys Val Tyr
     12235          35                  40                  45
     12237 Gln Pro His
```

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PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
E--> 12238      50
     12241 <210> SEQ ID NO: 579
     12242 <211> LENGTH: 57 (056)
     12243 <212> TYPE: PRT
     12244 <213> ORGANISM: Homo sapiens
     12246 <400> SEQUENCE: 579
     12247 Met His Phe Thr Phe Met Gln Leu Ile Tyr Leu Cys Phe Leu Gly Leu
     12248                   5                  10                  15
     12250 Leu Tyr Ile Arg His His Asp Ser Gln Ser Phe Val Ile Leu Tyr Tyr
     12251               20                  25                  30
     12253 Lys Lys Leu Asn Tyr Tyr Phe Lys Tyr Gly Gln Ile Arg Ala Phe His
     12254          35                  40                  45
     12256 Ile Ala Lys Val Tyr Gln Pro His
E--> 12257      50                  55
     15023 <210> SEQ ID NO: 701
     15024 <211> LENGTH: 3228
     15025 <212> TYPE: DNA
     15026 <213> ORGANISM: Homo sapien
     15028 <220> FEATURE:
     15029 <221> NAME/KEY: misc_feature
     15030 <222> LOCATION: (1)...(3228)
     15031 <223> OTHER INFORMATION: n = A,T,C or G
     15033 <400> SEQUENCE: 701
E--> 15034
tccgccccat tgacgcaaat ggcggtaggc gtgtacggtg ggaggtctat ataagcagag      60aactagagaa cccactgctt actggcttat cgaa
E--> 15035 atagggagac ccaagctggc tagcgtttaa acttaagctt ggtaccgagc tcggatccac     180
E--> 15036 tagtccagtg tggtggaatt ccattgtgtt gggcaggaaa caagcaaagt ggtggagcag     240
E--> 15037 caagtcaggt gatgtggagc ccagaggtca gggatggctg tctctctagg gtccacttgc     300
E--> 15038 ccttgtgaga cactttatcc cagcacttta ggaatactga ggtcatacca gccacatctt     360
E--> 15039 atatgcaaga ttgcccagca gagatcaggt ccgagagttc ccttttaaa aaaaggagac     420
E--> 15040 ttgcttaata aaagaagtct agccacgttt gtgtagagcg gctgtgctgt gctgggggtt     480
E--> 15041 cacttttgag agagttctcc tctgagacct gatctctgga ggctgggcaa tcttgcactt     540
E--> 15042 gagatggggc tggtctgatc tcagcactcc ttagtctgct cgcctctccc atggccccag     600
E--> 15043 cctggccaca cctgcttacg gggcactctt agatgcccac accataactt ccatgctagt     660
E--> 15044 ggactgtacc atatcagtgg agagctgcag caaggtggcc cctagagcca cgcaccagcc     720
E--> 15045 tgcacattgc ctctccatac ggcagccctt tatttggaaa cttcctaaat cactttgctg     780
E--> 15046 tgtgtgttta cacgggtgtg ttttgcttta cttgccctga gagcacacgg gagtgcagca     840
E--> 15047 cacaccccaa cccacatcaa ctgccattaa agaaaagaaa tttcagccca gaatttcatg     900
E--> 15048 tccagcaaaa ttaagcatca taagtgaagg agaaataaga tccttttcag acaagcaagt     960
E--> 15049 gctgagggaa tttggtatca ccagatctac cttacgagag ctcctgaagg aagcactaaa    1020
E--> 15050 tatggaaaga aaagatcatc acctgctact acaaaaacac actgaagtac acagtccaat    1080
E--> 15051 gatgctaaaa agcaagcaca tatgtaagtc tgcaaaataa ccagctgaca gcatgacgac    1140
E--> 15052 aggataaaat ccacacatac cattactaac cttaaatgta aatgggctaa atgctcccat    1200
E--> 15053 tgaaagacac ggggcaagct gggtaaagaa ccaagaccca ctggagtatg ccgtcttcaa    1260
E--> 15054 gcaacccatc tcacgtgcag tgccatacat aggctcaaaa taaaggaatg gagaaaaata    1320
E--> 15055 tttcaagcaa atggaaaaca gaaaaaaggt gttgcactcc cagtttctga caaaacagac    1380
E--> 15056 tctaccaata aagataaaaa aagagaagga cattacaaag gtggtcctga cctttgataa    1440
E--> 15057 atctcattat tgcttgatac caacctgggc tatttgtatt gcccaaacga ataggataat    1500
E--> 15058 ttgctgaggt tgtggagctt ctccccttca cagagtccct gatctccgaa aatttggttg    1560
E--> 15059 agatgtaagg ttgattttgc tgtacaactc ctttttgaa gttttactca tttccaacaa    1620
```

The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

eg. Seqs 580, 581, 582, 583-86, 701

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:33

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

E--> 15060 ggaaggcaag ttttcctgct tccattgaca aaggagagca ggcacctcct ttcctgagtt 1680
E--> 15061 tcagcttgct tctgacaggg aaggagcttt gagatttgaa tactggcctg ctgggttttg 1740
E--> 15062 gacgtgcatt gggcctgtgg tcccatttgt gttatttttc tgggaaattt cttccctttg 1800
E--> 15063 gagtgagaaa gcttacccaa tgcctgtacc atcatcgtac cttaaaagaa ctccatttta 1860
E--> 15064 agttcaggga ctccttggca gaagagaccg tagccttgta tcagatcata aaggagaaga 1920
E--> 15065 gcaagaggtc cccggcaaac atccacagat ggccttggaa ataagtcacc ttgctcaccc 1980
E--> 15066 tgcaggaatg ccagtgaact tattgctgac atcttggagc tcagtaccct catagtgtaa 2040
E--> 15067 cggcgtcagc agatctgcct gtgctgggac ttcctgtact acccattcct gaggggcgat 2100
E--> 15068 gcttctgcag ggcctgtgac ttggtgcaca acttcagaca ccatcatctt gcagcagcac 2160
E--> 15069 cgcaccctca ctagccaggg tgttgatgac ttcctcaagg ccaaggccac attcaaggct 2220
E--> 15070 tcggacttca ttgatgcgct tgtgctgagc aaggtggctt ctccgggatc ttaattcagg 2280
E--> 15071 aggtagaatg gagcttgaga tcaagtgtct gatcaagcct cagtgtatgg gcgctgttca 2340
E--> 15072 tcntctggtg ctgaagcagc caagagaccc aagtctgcct ggctgcntct taggatatga 2400
E--> 15073 cagcagagcc agtggcctct actagatcct gtacaacctc acaaaacacc cagacatcgg 2460
E--> 15074 gagtgctgcc agcctgtgat gcaagagtcc taatcctgaa gacattgaat gacctgtcat 2520
E--> 15075 tctgctgttt ttaccaaaaa ggatcatgag gatcagagag gaaaagtcac ttgcccaaag 2580
E--> 15076 tcacacagct gaacagtggt ggagttcaac tttgaccgtg ggctgtctga ccccaaggtg 2640
E--> 15077 tatgcttgct tctctcccaa gagacaactt tcttatcagg ctcaaatgaa tgaaaggagg 2700
E--> 15078 atgttaaagg taggatctct gaagcctgtg ccagtggaac cgcagctcat ggctggcacc 2760
E--> 15079 tgtgttctca ttcttacctc attaagagta aagtttattg agtttattga atttaagtat 2820
E--> 15080 ctttagtgag atcatatatt attagtaaga actgggacca aacagatttt ctgactctaa 2880
E--> 15081 aagagagatt ttcacagaaa cagatatata cctgtaagta tacagacacg catacacaca 2940
E--> 15082 tttctttact gctcataaaa attagtcctt attagaatgt gggatgtata aatgtaagag 3000
E--> 15083 aattttcatg ttaaaattga cagatacatt tttaaattgt cctaaaataa atttaattat 3060
E--> 15084 ttttntttta gaattttcca ttattaatgt tatttttatg agaaactata taactttatt 3120
E--> 15085 gataatacat acaataaccc tttgtttttc aaattgaaaa tacagtgtat tttgcaaata 3180
E--> 15086 actaagtcct aattttgtat taaaatttta aattttcaaa aaaaaaaa 3228

17350 <210> SEQ ID NO: 778
17351 <211> LENGTH: 1095
17352 <212> TYPE: PRT
17353 <213> ORGANISM: Homo sapiens
17355 <400> SEQUENCE: 778
17356 Met Arg Asn Arg Arg Asn Asp Thr Leu Asp Ser Thr Arg Thr Leu Tyr
17357 5 10 15
17359 Ser Ser Ala Ser Arg Ser Thr Asp Leu Ser Tyr Ser Glu Ser Asp Leu
17360 20 25 30
17362 Val Asn Phe Ile Gln Ala Asn Phe Lys Lys Arg Glu Cys Val Phe Phe
17363 35 40 45
17365 Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
17366 50 55 60
17368 Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
17369 65 70 75 80
17371 Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
17372 85 90 95
17374 Ile Gln Phe Glu Thr Leu Gly Lys Lys Gly Lys Tyr Ile Arg Leu Ser
17375 100 105 110
17377 Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp
17378 115 120 125
17380 His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys

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RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:34

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
17381     130                 135                 140
17383 Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile
17384 145                 150                 155                 160
17386 Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His
17387                 165                 170                 175
17389 Tyr Gly Leu Thr Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile
17390             180                 185                 190
17392 Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp
17393         195                 200                 205
17395 Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu
17396     210                 215                 220
17398 Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro
17399 225                 230                 235                 240
17401 Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn
17402                 245                 250                 255
17404 Gly Cys His Gly His Pro Thr Val Glu Ala Lys Leu Arg Asn Gln Leu
17405             260                 265                 270
17407 Glu Lys His Ile Ser Glu Arg Thr Ile Gln Asp Ser Asn Tyr Gly Gly
17408         275                 280                 285
17410 Lys Ile Pro Ile Val Cys Phe Ala Gln Gly Gly Gly Lys Glu Thr Leu
17411     290                 295                 300
17413 Lys Ala Ile Asn Thr Ser Ile Lys Asn Lys Ile Pro Cys Val Val Val
17414 305                 310                 315                 320
17416 Glu Gly Ser Gly Arg Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val
17417                 325                 330                 335
17419 Glu Asp Ala Pro Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe
17420             340                 345                 350
17422 Leu Pro Arg Thr Val Ser Arg Leu Ser Glu Glu Glu Thr Glu Ser Trp
17423         355                 360                 365
17425 Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val
17426     370                 375                 380
17428 Ile Lys Met Glu Glu Ala Gly Asp Glu Ile Val Ser Asn Ala Ile Ser
17429 385                 390                 395                 400
17431 Tyr Ala Leu Tyr Lys Ala Phe Ser Thr Ser Glu Gln Asp Lys Asp Asn
17432                 405                 410                 415
17434 Trp Asn Gly Gln Leu Lys Leu Leu Leu Glu Trp Asn Gln Leu Asp Leu
17435             420                 425                 430
17437 Ala Asn Asp Glu Ile Phe Thr Asn Asp Arg Arg Trp Glu Ser Ala Asp
17438         435                 440                 445
17440 Leu Gln Glu Val Met Phe Thr Ala Leu Ile Lys Asp Arg Pro Lys Phe
17441     450                 455                 460
17443 Val Arg Leu Phe Leu Glu Asn Gly Leu Asn Leu Arg Lys Phe Leu Thr
17444 465                 470                 475                 480
17446 His Asp Val Leu Thr Glu Leu Phe Ser Asn His Phe Ser Thr Leu Val
17447                 485                 490                 495
17449 Tyr Arg Asn Leu Gln Ile Ala Lys Asn Ser Tyr Asn Asp Ala Leu Leu
17450             500                 505                 510
17452 Thr Phe Val Trp Lys Leu Val Ala Asn Phe Arg Arg Gly Phe Arg Lys
17453         515                 520                 525
```

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:34

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
17455 Glu Asp Arg Asn Gly Arg Asp Glu Met Asp Ile Glu Leu His Asp Val
17456     530                 535                 540
17458 Ser Pro Ile Thr Arg His Pro Leu Gln Ala Leu Phe Ile Trp Ala Ile
17459 545                 550                 555                 560
17461 Leu Gln Asn Lys Lys Glu Leu Ser Lys Val Ile Trp Glu Gln Thr Arg
17462                 565                 570                 575
17464 Gly Cys Thr Leu Ala Ala Leu Gly Ala Ser Lys Leu Leu Lys Thr Leu
17465             580                 585                 590
17467 Ala Lys Val Lys Asn Asp Ile Asn Ala Ala Gly Glu Ser Glu Glu Leu
17468         595                 600                 605
17470 Ala Asn Glu Tyr Glu Thr Arg Ala Val Glu Leu Phe Thr Glu Cys Tyr
17471     610                 615                 620
17473 Ser Ser Asp Glu Asp Leu Ala Glu Gln Leu Leu Val Tyr Ser Cys Glu
17474 625                 630                 635                 640
17476 Ala Trp Gly Gly Ser Asn Cys Leu Glu Leu Ala Val Glu Ala Thr Asp
17477                 645                 650                 655
17479 Gln His Phe Thr Ala Gln Pro Gly Val Gln Asn Phe Leu Ser Lys Gln
17480             660                 665                 670
17482 Trp Tyr Gly Glu Ile Ser Arg Asp Thr Lys Asn Trp Lys Ile Ile Leu
17483         675                 680                 685
17485 Cys Leu Phe Ile Ile Pro Leu Val Gly Cys Gly Phe Val Ser Phe Arg
17486     690                 695                 700
17488 Lys Lys Pro Val Asp Lys His Lys Lys Leu Leu Trp Tyr Tyr Val Ala
17489 705                 710                 715                 720
17491 Phe Phe Thr Ser Pro Phe Val Val Phe Ser Trp Asn Val Val Phe Tyr
17492                 725                 730                 735
17494 Ile Ala Phe Leu Leu Leu Phe Ala Tyr Val Leu Leu Met Asp Phe His
17495             740                 745                 750
17497 Ser Val Pro His Pro Pro Glu Leu Val Leu Tyr Ser Leu Val Phe Val
17498         755                 760                 765
17500 Leu Phe Cys Asp Glu Val Arg Gln Trp Tyr Val Asn Gly Val Asn Tyr
17501     770                 775                 780
17503 Phe Thr Asp Leu Trp Asn Val Met Asp Thr Leu Gly Leu Phe Tyr Phe
17504 785                 790                 795                 800
17506 Ile Ala Gly Ile Val Phe Arg Leu His Ser Ser Asn Lys Ser Ser Leu
17507                 805                 810                 815
17509 Tyr Ser Gly Arg Val Ile Phe Cys Leu Asp Tyr Ile Ile Phe Thr Leu
17510             820                 825                 830
17512 Arg Leu Ile His Ile Phe Thr Val Ser Arg Asn Leu Gly Pro Lys Ile
17513         835                 840                 845
17515 Ile Met Leu Gln Arg Met Leu Ile Asp Val Phe Phe Leu Phe Leu
17516     850                 855                 860
17518 Phe Ala Val Trp Met Val Ala Phe Gly Val Ala Arg Gln Gly Ile Leu
17519 865                 870                 875                 880
17521 Arg Gln Asn Glu Gln Arg Trp Arg Trp Ile Phe Arg Ser Val Ile Tyr
17522                 885                 890                 895
17524 Glu Pro Tyr Leu Ala Met Phe Gly Gln Val Pro Ser Asp Val Asp Gly
17525             900                 905                 910
17527 Thr Thr Tyr Asp Phe Ala His Cys Thr Phe Thr Gly Asn Glu Ser Lys
```

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:34

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
17528          915                 920                 925
17530 Pro Leu Cys Val Glu Leu Asp Glu His Asn Leu Pro Arg Phe Pro Glu
17531      930                 935                 940
17533 Trp Ile Thr Ile Pro Leu Val Cys Ile Tyr Met Leu Ser Thr Asn Ile
17534 945                 950                 955                 960
17536 Leu Leu Val Asn Leu Leu Val Ala Met Phe Gly Tyr Thr Val Gly Thr
17537                 965                 970                 975
17539 Val Gln Glu Asn Asn Asp Gln Val Trp Lys Phe Gln Arg Tyr Phe Leu
17540             980                 985                 990
17542 Val Gln Glu Tyr Cys Ser Arg Leu Asn Ile Pro Phe Pro Phe Ile Val
E--> 17543         995                1000                1005
17545 Phe Ala Tyr Phe Tyr Met Val Val Lys Lys Cys Phe Lys Cys Cys Cys
E--> 17546     1010                1015                1020
17548 Lys Glu Lys Asn Met Glu Ser Ser Val Cys Cys Phe Lys Asn Glu Asp
E--> 17549 1025                1030                1035                1040
17551 Asn Glu Thr Leu Ala Trp Glu Gly Val Met Lys Glu Asn Tyr Leu Val
E--> 17552                 1045                1050                1055
17554 Lys Ile Asn Thr Lys Ala Asn Asp Thr Ser Glu Glu Met Arg His Arg
E--> 17555             1060                1065                1070
17557 Phe Arg Gln Leu Asp Thr Lys Leu Asn Asp Leu Lys Gly Leu Leu Lys
E--> 17558         1075                1080                1085
17560 Glu Ile Ala Asn Lys Ile Lys
17561     1090                1095
17633 <210> SEQ ID NO: 780
17634 <211> LENGTH: 1095
17635 <212> TYPE: PRT
17636 <213> ORGANISM: Homo sapiens
17638 <220> FEATURE:
17639 <221> NAME/KEY: VARIANT
17640 <222> LOCATION: (1)...(1095)
17641 <223> OTHER INFORMATION: Xaa = Any Amino Acid
17643 <400> SEQUENCE: 780
17644 Met Arg Asn Arg Arg Asn Asp Thr Leu Asp Ser Thr Arg Thr Leu Tyr
17645                   5                  10                  15
17647 Ser Ser Ala Ser Arg Ser Thr Asp Leu Ser Tyr Ser Glu Ser Asp Leu
17648              20                  25                  30
17650 Val Asn Phe Ile Gln Ala Asn Phe Lys Lys Arg Glu Cys Val Phe Phe
17651          35                  40                  45
17653 Thr Lys Asp Ser Lys Ala Thr Glu Asn Val Cys Lys Cys Gly Tyr Ala
17654      50                  55                  60
17656 Gln Ser Gln His Met Glu Gly Thr Gln Ile Asn Gln Ser Glu Lys Trp
17657  65                  70                  75                  80
17659 Asn Tyr Lys Lys His Thr Lys Glu Phe Pro Thr Asp Ala Phe Gly Asp
17660                  85                  90                  95
17662 Ile Gln Phe Glu Thr Leu Gly Lys Lys Gly Lys Tyr Ile Arg Leu Ser
17663             100                 105                 110
17665 Cys Asp Thr Asp Ala Glu Ile Leu Tyr Glu Leu Leu Thr Gln His Trp
17666         115                 120                 125
17668 His Leu Lys Thr Pro Asn Leu Val Ile Ser Val Thr Gly Gly Ala Lys
```

fix nos

p.30

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:34

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
17669     130                 135                 140
17671 Asn Phe Ala Leu Lys Pro Arg Met Arg Lys Ile Phe Ser Arg Leu Ile
17672 145                 150                 155                 160
17674 Tyr Ile Ala Gln Ser Lys Gly Ala Trp Ile Leu Thr Gly Gly Thr His
17675                 165                 170                 175
17677 Tyr Gly Leu Met Lys Tyr Ile Gly Glu Val Val Arg Asp Asn Thr Ile
17678             180                 185                 190
17680 Ser Arg Ser Ser Glu Glu Asn Ile Val Ala Ile Gly Ile Ala Ala Trp
17681         195                 200                 205
17683 Gly Met Val Ser Asn Arg Asp Thr Leu Ile Arg Asn Cys Asp Ala Glu
17684     210                 215                 220
17686 Gly Tyr Phe Leu Ala Gln Tyr Leu Met Asp Asp Phe Thr Arg Asp Pro
17687 225                 230                 235                 240
17689 Leu Tyr Ile Leu Asp Asn Asn His Thr His Leu Leu Leu Val Asp Asn
17690                 245                 250                 255
17692 Gly Cys His Gly His Pro Thr Val Glu Ala Lys Leu Arg Asn Gln Leu
17693             260                 265                 270
17695 Glu Lys Tyr Ile Ser Glu Arg Thr Ile Gln Asp Ser Asn Tyr Gly Gly
17696         275                 280                 285
17698 Lys Ile Pro Ile Val Cys Phe Ala Gln Gly Gly Gly Lys Glu Thr Leu
17699     290                 295                 300
17701 Lys Ala Ile Asn Thr Ser Ile Lys Asn Lys Ile Pro Cys Val Val Val
17702 305                 310                 315                 320
17704 Glu Gly Ser Gly Gln Ile Ala Asp Val Ile Ala Ser Leu Val Glu Val
17705                 325                 330                 335
17707 Glu Asp Ala Leu Thr Ser Ser Ala Val Lys Glu Lys Leu Val Arg Phe
17708             340                 345                 350
17710 Leu Pro Arg Thr Val Ser Arg Leu Pro Glu Glu Glu Thr Glu Ser Trp
17711         355                 360                 365
17713 Ile Lys Trp Leu Lys Glu Ile Leu Glu Cys Ser His Leu Leu Thr Val
17714     370                 375                 380
17716 Ile Lys Met Glu Glu Ala Gly Asp Glu Ile Val Ser Asn Ala Ile Ser
17717 385                 390                 395                 400
17719 Tyr Ala Leu Tyr Lys Ala Phe Ser Thr Ser Glu Gln Asp Lys Asp Asn
17720                 405                 410                 415
17722 Trp Asn Gly Gln Leu Lys Leu Leu Leu Glu Trp Asn Gln Leu Asp Leu
17723             420                 425                 430
17725 Ala Asn Asp Glu Ile Phe Thr Asn Asp Arg Arg Trp Glu Ser Ala Asp
17726         435                 440                 445
17728 Leu Gln Glu Val Met Phe Thr Ala Leu Ile Lys Asp Arg Pro Lys Phe
17729     450                 455                 460
17731 Val Arg Leu Phe Leu Glu Asn Gly Leu Asn Leu Arg Lys Phe Leu Thr
17732 465                 470                 475                 480
17734 His Asp Val Leu Thr Glu Leu Phe Ser Asn His Phe Ser Thr Leu Val
17735                 485                 490                 495
17737 Tyr Arg Asn Leu Gln Ile Ala Lys Asn Ser Tyr Asn Asp Ala Leu Leu
17738             500                 505                 510
17740 Thr Phe Val Trp Lys Leu Val Ala Asn Phe Arg Arg Gly Phe Arg Lys
17741         515                 520                 525
```

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:34

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
17743 Glu Asp Arg Asn Gly Arg Asp Glu Met Asp Ile Glu Leu His Asp Val
17744     530                 535                 540
17746 Ser Pro Ile Thr Arg His Pro Leu Gln Ala Leu Phe Ile Trp Ala Ile
17747 545                 550                 555                 560
17749 Leu Gln Asn Lys Lys Glu Leu Ser Lys Val Ile Trp Glu Gln Thr Arg
17750                 565                 570                 575
17752 Gly Cys Thr Leu Ala Ala Leu Gly Ala Ser Lys Leu Leu Lys Thr Leu
17753             580                 585                 590
17755 Ala Lys Val Lys Asn Asp Ile Asn Ala Ala Gly Glu Ser Glu Glu Leu
17756         595                 600                 605
17758 Ala Asn Glu Tyr Glu Thr Arg Ala Val Glu Leu Phe Thr Glu Cys Tyr
17759     610                 615                 620
17761 Ser Ser Asp Glu Asp Leu Ala Glu Gln Leu Leu Val Tyr Ser Cys Glu
17762 625                 630                 635                 640
17764 Ala Trp Gly Gly Ser Asn Cys Leu Glu Leu Ala Val Glu Ala Thr Asp
17765                 645                 650                 655
17767 Gln His Phe Ile Ala Gln Pro Gly Val Gln Asn Phe Leu Ser Lys Gln
17768             660                 665                 670
17770 Trp Tyr Gly Glu Ile Ser Arg Asp Thr Lys Asn Trp Lys Ile Ile Leu
17771         675                 680                 685
17773 Cys Leu Phe Ile Ile Pro Leu Val Gly Cys Gly Phe Val Ser Phe Arg
17774     690                 695                 700
17776 Lys Lys Pro Val Asp Lys His Lys Lys Leu Leu Trp Tyr Tyr Val Ala
17777 705                 710                 715                 720
17779 Phe Phe Thr Ser Pro Phe Val Val Phe Ser Trp Asn Val Val Phe Tyr
17780                 725                 730                 735
17782 Ile Ala Phe Leu Leu Leu Phe Ala Tyr Val Leu Leu Met Asp Phe His
17783             740                 745                 750
17785 Ser Val Pro His Pro Pro Glu Leu Val Leu Tyr Ser Leu Val Phe Val
17786         755                 760                 765
17788 Leu Phe Cys Asp Glu Val Arg Gln Trp Tyr Val Asn Gly Val Asn Tyr
17789     770                 775                 780
17791 Phe Thr Asp Leu Trp Asn Val Met Asp Thr Leu Gly Leu Phe Tyr Phe
17792 785                 790                 795                 800
17794 Ile Ala Gly Ile Val Phe Arg Leu His Ser Ser Asn Lys Ser Ser Leu
17795                 805                 810                 815
17797 Tyr Ser Gly Arg Val Ile Phe Cys Leu Asp Tyr Ile Ile Phe Thr Leu
17798             820                 825                 830
17800 Arg Leu Ile His Ile Phe Thr Val Ser Arg Asn Leu Gly Pro Lys Ile
17801         835                 840                 845
17803 Ile Met Leu Gln Arg Met Leu Ile Asp Val Phe Phe Leu Phe Leu
17804     850                 855                 860
17806 Phe Ala Xaa Trp Met Val Ala Phe Gly Val Ala Arg Gln Gly Ile Leu
17807 865                 870                 875                 880
17809 Arg Gln Asn Glu Gln Arg Trp Arg Trp Ile Phe Arg Ser Val Ile Tyr
17810                 885                 890                 895
17812 Glu Pro Tyr Leu Ala Met Phe Gly Gln Val Pro Ser Asp Val Asp Gly
17813             900                 905                 910
17815 Thr Thr Tyr Asp Phe Ala His Cys Thr Phe Thr Gly Asn Glu Ser Lys
```

RAW SEQUENCE LISTING DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:34

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

```
     17816          915                 920                 925
     17818 Pro Leu Cys Val Glu Leu Asp Glu His Asn Leu Pro Arg Phe Pro Glu
     17819      930                 935                 940
     17821 Trp Ile Thr Ile Pro Leu Val Cys Ile Tyr Met Leu Ser Thr Asn Ile
     17822 945                 950                 955                 960
     17824 Leu Leu Val Asn Leu Leu Val Ala Met Phe Gly Tyr Thr Val Gly Thr
     17825                 965                 970                 975
     17827 Val Gln Glu Asn Asn Asp Gln Val Trp Lys Phe Gln Arg Tyr Phe Leu
     17828             980                 985                 990
     17830 Val Gln Glu Tyr Cys Ser Arg Leu Asn Ile Pro Phe Pro Phe Ile Val
E--> 17831          995                1000                1005
     17833 Phe Ala Tyr Phe Tyr Met Val Val Lys Lys Cys Phe Lys Cys Cys Cys
E--> 17834     1010                1015                1020
     17836 Lys Glu Lys Asn Met Glu Ser Ser Val Cys Cys Phe Lys Asn Glu Asp
E--> 17837 1025                1030                1035                1040
     17839 Asn Glu Thr Leu Ala Trp Glu Gly Val Met Lys Glu Asn Tyr Leu Val
E--> 17840                1045                1050                1055
     17842 Lys Ile Asn Thr Lys Ala Asn Asp Thr Ser Glu Glu Met Arg His Arg
E--> 17843             1060                1065                1070
     17845 Phe Arg Gln Leu Asp Thr Lys Leu Asn Asp Leu Lys Gly Leu Leu Lys
E--> 17846          1075                1080                1085
     17848 Glu Ile Ala Asn Lys Ile Lys
     17849     1090                1095
```

fix nos.

FYI

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY DATE: 06/20/2000
PATENT APPLICATION: US/09/593,793 TIME: 12:41:35

Input Set : A:\42715c15.app
Output Set: N:\CRF3\06202000\I593793.raw

L:26 M:270 C: Current Application Number differs, Wrong Format
L:27 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:53 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:55 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:56 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:79 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:80 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:81 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:83 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:100 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:126 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:130 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:134 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:158 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:159 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:160 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:184 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:185 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:210 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:211 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:212 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:229 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:230 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:231 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:233 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:234 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:236 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8

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L:237 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:238 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:254 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:699 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:3
L:1470 M:283 W: Missing Blank Line separator, <400> field identifier
L:7338 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:378
M:332 Repeated in SeqNo=378
L:7714 M:252 E: No. of Seq. differs, <211>LENGTH:Input:155 Found:154 SEQ:383
L:9546 M:252 E: No. of Seq. differs, <211>LENGTH:Input:141 Found:140 SEQ:477
L:9580 M:252 E: No. of Seq. differs, <211>LENGTH:Input:144 Found:143 SEQ:478
L:9629 M:252 E: No. of Seq. differs, <211>LENGTH:Input:223 Found:222 SEQ:479
L:9663 M:252 E: No. of Seq. differs, <211>LENGTH:Input:145 Found:144 SEQ:480
L:9706 M:252 E: No. of Seq. differs, <211>LENGTH:Input:168 Found:167 SEQ:481
L:9740 M:252 E: No. of Seq. differs, <211>LENGTH:Input:144 Found:143 SEQ:482
L:9774 M:252 E: No. of Seq. differs, <211>LENGTH:Input:144 Found:143 SEQ:483
L:10021 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502
L:10021 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502
L:10021 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502
L:10021 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502
L:10021 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:502
L:10022 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502
L:10022 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502
L:10022 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502
L:10022 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502
M:340 Repeated in SeqNo=502
L:10023 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502
L:10023 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502
L:10023 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502
L:10023 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502
L:10024 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502
L:10024 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502
L:10024 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502
L:10024 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502
L:10026 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:502
L:10026 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:502
L:10026 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:502
L:10026 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:502
L:10034 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503
L:10034 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503
L:10034 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503
L:10034 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503
L:10034 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:503
L:10035 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503
L:10035 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503
L:10035 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503
L:10035 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503
M:340 Repeated in SeqNo=503
L:10036 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503

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L:10036 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503
L:10036 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503
L:10036 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503
L:10038 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503
L:10038 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503
L:10038 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503
L:10038 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503
L:10039 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503
L:10039 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503
L:10039 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503
L:10039 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503
L:10040 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:503
L:10040 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:503
L:10040 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:503
L:10040 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:503
L:10110 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:508
L:10110 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:508
L:10110 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:508
L:10110 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:508
L:10110 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:508
L:10324 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:523
L:10324 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:523
L:10324 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:523
L:10331 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:523
L:10390 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:525
L:10480 M:252 E: No. of Seq. differs, <211>LENGTH:Input:321 Found:320 SEQ:527
L:10619 M:252 E: No. of Seq. differs, <211>LENGTH:Input:293 Found:292 SEQ:532
L:10698 M:252 E: No. of Seq. differs, <211>LENGTH:Input:267 Found:266 SEQ:534
L:11118 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:537
M:332 Repeated in SeqNo=537
L:11160 M:252 E: No. of Seq. differs, <211>LENGTH:Input:1229 Found:1228 SEQ:537
L:11355 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:538
M:332 Repeated in SeqNo=538
L:11403 M:252 E: No. of Seq. differs, <211>LENGTH:Input:1262 Found:1261 SEQ:538
L:11562 M:252 E: No. of Seq. differs, <211>LENGTH:Input:15 Found:11 SEQ:551
L:12151 M:252 E: No. of Seq. differs, <211>LENGTH:Input:63 Found:62 SEQ:574
L:12173 M:252 E: No. of Seq. differs, <211>LENGTH:Input:77 Found:76 SEQ:575
L:12200 M:252 E: No. of Seq. differs, <211>LENGTH:Input:69 Found:68 SEQ:576
L:12219 M:252 E: No. of Seq. differs, <211>LENGTH:Input:58 Found:57 SEQ:577
L:12238 M:252 E: No. of Seq. differs, <211>LENGTH:Input:52 Found:51 SEQ:578
L:12257 M:252 E: No. of Seq. differs, <211>LENGTH:Input:57 Found:56 SEQ:579
L:12279 M:252 E: No. of Seq. differs, <211>LENGTH:Input:68 Found:67 SEQ:580
L:12301 M:252 E: No. of Seq. differs, <211>LENGTH:Input:78 Found:77 SEQ:581
L:12320 M:252 E: No. of Seq. differs, <211>LENGTH:Input:52 Found:51 SEQ:582
L:12339 M:252 E: No. of Seq. differs, <211>LENGTH:Input:61 Found:60 SEQ:583
L:12361 M:252 E: No. of Seq. differs, <211>LENGTH:Input:77 Found:76 SEQ:584
L:12380 M:252 E: No. of Seq. differs, <211>LENGTH:Input:51 Found:50 SEQ:585
L:12399 M:252 E: No. of Seq. differs, <211>LENGTH:Input:61 Found:60 SEQ:586
L:15034 M:254 E: No. of Bases conflict, LENGTH:Input:120 Counted:110 SEQ:701

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L:15034 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:2
M:254 Repeated in SeqNo=701
L:15086 M:252 E: No. of Seq. differs, <211>LENGTH:Input:3228 Found:3218 SEQ:701
L:17543 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:778
M:332 Repeated in SeqNo=778
L:17831 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:780
M:332 Repeated in SeqNo=780